

HOW TO HEAL



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With Kindest Wishes
Yours for Truth and Right.
Jno. K. Anderson

FEB 10 1899

"Disease is the punishment of ignorance"

How to Heal

— BY —

Nature's Potent Methods

A WORTHY COUNSELLOR IN HEALTH, SICK-
NESS, PAIN AND DISTRESS

CONTAINING IN SIMPLE AND FAMILIAR LANGUAGE ALL THE
INFORMATION NECESSARY FOR THE PROMOTION OF LIFE,
HEALTH AND HAPPINESS, AND THE NATURAL AND
SUCCESSFUL TREATMENT OF DISEASES INCI-
DENTAL TO THE HUMAN BODY THROUGH-
OUT EVERY PERIOD OF ITS EXISTENCE,
FORMING A PERFECT GUIDE TO THE
PRESERVATION OF HEALTH AND
ATTAINMENT OF LONGEVITY
WITHOUT RESORTING TO
THE USE OF DRUGS
AND POISONS

A SYSTEM OF NATURE WHICH REVEALS THE CORRECT
LAWS OF THE MORAL AND PHYSICAL WORLD

FOR THE PLEASANT PERUSAL AND PROFOUND STUDY OF EVERYBODY

ARRANGED AND COMPILED BY

JOHN K. ANDERSON

291321

"Nature is our great physician"

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Dedication.

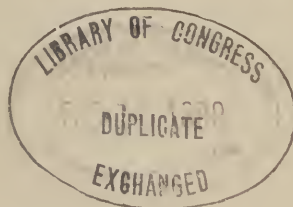
TO SUFFERING HUMANITY AND THE THINKING
CLASSES EVERYWHERE, AND VERY ESPECIALLY TO
MY SON,

PROF. L. H. ANDERSON,
PRINCIPAL OF
THE NATIONAL INSTITUTE OF SCIENCE,
CHICAGO, ILL.,

WHOSE GRAND WORK IN THE INTERESTS OF THE WEAK
AND HELPLESS I HAVE WATCHED WITH DEEP INTER-
EST, THIS BOOK IS AFFECTIONATELY DEDICATED.

TWO COPIES ARE MADE.

J. K. A.



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INTRODUCTION.

FEELING satisfied that the people in general are willing to be informed on the science of right living, and that they will appreciate truth in its warfare against their much-loved and destructive appetites and habits, I am encouraged to write under the most hearty sympathy with the sufferings of humanity such facts relating to the laws of life and health, and the destructive nature of various popular appetites and practices which are working ruin to the physical, intellectual and moral welfare of this generation.

These facts, compared and associated with other facts which have been developed by the researches of other men, such as Coles, Thompson, Mattson, Nichols, Allinson, Dinsmore, Hall, Miller, Severence, Kuhne, Kneipp, Wells and others, are here set forth in a plain and simple style, to be adapted to the reading of all classes of people, professional and laity alike, and the benefit of every one who wishes to be informed upon that which belongs to his highest earthly good.

There is no cause of human suffering so great as the want of intelligence among the people on this subject. There are comparatively few who have even read the first word on this important matter, and, therefore, few who know any more about the structure and functions of their own bodies, or the natural laws which govern their healthy condition and the prevention of disease, than they know about the inhabitants of the moon. Those who think themselves wise on this subject, with-

out reading, are of all persons the most ignorant of it.

In placing this book before the public I wish to say that I have been actuated by no spirit of malice toward the medical profession which would cause me to oppose so bitterly their indiscriminate and pernicious use of drugs, nor by a feeling of scorn for the dense ignorance of many of the fraternity, but by a love of humanity deep and pure, a sympathy for their suffering and for their struggle towards a higher state, to which it seems impossible for them to attain so long as they remain without a knowledge of their own being, that is so broad, so far reaching, so unselfish in its intensity that I would not feel my life work to be finished until I had given to the human family the result of my many years of patient research, of unceasing toil.

Therefore, I have written, and as to the merits of what I have said, Time will prove or disprove the efficacy of my treatments and the wisdom of my statements. I have read diligently the works of the most prominent medical men, I have watched carefully the people about me, have studied books, have pried into the heart of Nature, and have discovered many of her valuable secrets—nay, rather, I have listened humbly to her loving voice, and have learned from her how man may conform his life to her sacred laws, and by so doing come into harmony with her divine teachings.

I have wandered by stream and through the wood, have watched her as she guided and directed the lower creatures in their choice of remedies, and have learned from them that her wisdom is greater than that of man, her remedies safer, her judgment unerring.

In this book I have endeavored to teach natural methods of healing, and to express myself so clearly that

there could be no possible mistake. I trust the work will accomplish all I have dreamed; that it may teach every man to be his own physician; that it may instruct those members of the medical profession into whose hands it may fall in a higher law (which leads to health) than is taught in their colleges. I believe the doctors have done a great deal of good; they have also done a great deal of harm. Many of the ills from which the human family suffer to-day are traceable directly to the use of drugs which have sapped the strength and vitality of the patient and laid the foundation for organic diseases which never would have existed but for the remedies prescribed to cure functional disorders. Much of this has been due to the gross ignorance, the blind stupidity and the wilful disregard for human life and human suffering. Many physicians have not hesitated to experiment upon their patients in order to test the power of their remedies; much of it has been due to the fact that there is too little originality among medical men—many of them simply follow established custom, whether good or bad, beneficial or injurious, while a very great deal of the trouble arises from the fact that there is really but little known regarding the human body, its parts and functions. When we proceed to write down what we absolutely *know* about the different organs, their workings, their uses and their relations to each other, we can but stand aghast at our own unbounded stupidity.

Men may write ponderous works upon theories and fill thousands of sheets of paper with high-sounding words and meaningless phrases, but when we come down to absolute facts and demonstrated principles it is quite another thing, for then we are made painfully aware of

our own stupendous folly, our inexpressible ignorance. With all our boasted progress in the realm of science, we are still unlearned in the smallest things which concern human life, human existence.

Doctors themselves have been deceived, and in many cases, while they have done the best they could, have carefully practiced what they were taught by those they considered authority upon the subject pertaining to their profession, and have watched with despair the inefficacy of the remedies used to prolong or save life. They have come slowly to a full realization of the fact that their learned professors knew nothing of the science they taught, and have in many cases given up the use of drugs altogether, substituting simple, harmless remedies that could not injure the health and which served to keep up the delusion that they were practicing physicians. Many have openly denounced the professional practice as dangerous, and have proclaimed to the world their unbelief in the whole medical science, declaring it to be founded upon erroneous ideas and false theories. When the most enlightened, the most scientific, the most successful of the fraternity thus boldly announce their total disbelief in the work to which they have devoted their lives, there must be something radically wrong in the whole system of medicine.

From time immemorial the "Medicine Men" have been the objects of the idolatrous worship, the tender love, the sincerest reverence of mankind. Our advance in science and art, in commerce and civilization, has not effaced from the hearts of the people the adoration they have ever felt for those skilled in life and death. They have been looked up to as superior beings, a class apart, for did they not hold in their hands the destiny of the

well no less than the sick? Throughout all ages, among all people, the men who have devoted themselves to the study of medicine have possessed a powerful influence over others. No king has ever been so strong as the administrator of pills, pellets, potions, powders and poisons. The power of life or death lay within their hands, and the mightiest potentate was weak as a child before them. Too often unscrupulous men, animated by a desire for riches, honor, fame, have used this power to further their own selfish ends, and in order to hold their influence over the masses have built up a profession, surrounding it with all the mysticism possible, using the knowledge they obtained in tightening the bands they had wound around an ignorant and superstitious people until their power was unlimited, the confidence of their victims unbounded.

No class has so thoroughly understood human nature, and has so played upon human weakness, as have the doctors since first man felt the necessity of a mediator between himself and the goddess Health. He has touched with skilled fingers the human heart, and it has throbbed responsive to his will. He has commanded, men have obeyed; at his dictates they have been well and happy or they have been ill and their days full of anguish. With his charms he has warded off disease, with his potions he has summoned death. No wonder he has been feared and loved, has received the adoration of the masses; no wonder people even in this day consider the doctor indispensable and swallow his medicines and obey his dictates like children.

When we examine their methods of treatment and the vile stuffs they administer, we do not wonder that the human race is devoured by disease; indeed, we wonder

they are even as well and strong as they are when we consider that the whole human family has been dosing itself with every herb, root and bark, every possible poison, cutting, slashing, experimenting indiscriminately since first the history of man begun.

In this work I have given a number of strictly natural cures for diseases which have been tried, tested, proved and established as firmly and as everlastingly as truth.

The quacking of all the old-fashioned doctors in the universe cannot stay their progress any more than a spider's web can stay the mighty cataract of Niagara, or prevent them from becoming *the* remedy for all diseases.

Years ago, when on the old farm, I first studied the laws of Nature, and recognized her infallible methods, and in my researches was aided by Samuel Snoddy. Together we prepared the simple remedies for friends and neighbors, taught them the laws of cause and effect, and were so successful in our homely "practice" that the doctor was seldom seen in our community, and when he did come it was a noticeable fact that he was soon followed by the undertaker.

Let every individual wake up on this matter, and avail himself of Nature's health-insurance policy, for Nature always goes for health and long life.

There is scarcely any subject so universally neglected as a knowledge of the laws of health and life. All people love to be well and dread to be sick, yet take little or no pains to economize their health or to ward off disease. They indulge their appetites and inclinations in violation of the laws of health, until they are overtaken with the penalty which Nature has affixed to them in the form of disease, and then know not why or wherefore they are ill, or how to recover.

It may with propriety be said that nineteen cases out of twenty, if not ninety-nine out of a hundred, of the ills which annoy mankind, especially those of a chronic character, might be avoided. We might as well enjoy health, as a general rule, as to be groaning under pains and diseases. Though we might not be able to repel measles, small-pox, scarlet fever and many other contagious or epidemic diseases, yet nearly all chronic diseases, and a very large proportion of those which are acute, might be prevented; and even those which could not be avoided—for instance that fearful malady the cholera—by habitual obedience to law would be made of much milder form.

Very little is known by the people at large on this subject, and what is known is very lightly appreciated. Scarcely any subject can be presented to the community in which they take so little interest as that which immediately concerns their health, until they are overtaken with disease. Scarcely any subject is more unwelcome than this, especially to those who love their appetites more than health. They create a very large majority of their diseases by ignorance of their own organic laws—inform themselves on every subject but this—treat health as a matter of no account till destroyed—charge their sufferings to Providence, and DRUG THEMSELVES TO DEATH.

These pages are intended for those who are willing to know what course is best in order to retain or to regain a healthy constitution; for those who have more regard for their own ultimate good than for their present gratification; for those who prefer the right way to that which fosters unlawful indulgence.

It is not only a matter of expediency that we obey law in this respect, but a matter of duty. The laws which

govern our constitutions are divine, and to their violation there is affixed a penalty, which must sooner or later be met. And it is as truly a sin to violate one of these laws as it is to violate any other law. Many seem to think that they have a right to treat their own bodies as they please, forgetting that Nature will hold them under obligation to physical as well as moral law, and that every infringement will meet with its legitimate and appropriate punishment.

While no strong claims to originality are made in behalf of this book, yet I do affirm that the wheat has been culled from the chaff, and what is herein advocated will be found most useful and practical both to professionals and the public at large.

Acknowledgment has already been made, and that without any humiliating feelings, of my obligations to other authors; it remains on this subject but to remark that, when considered practical, I have taken such matter *verbatim*. At other times I have altered it either slightly or entirely, a mode of procedure which has become so common in all ages as to be esteemed an honorable mode of procedure, especially when due credit is given, which I have freely done.

Every claim made herein is strongly fortified by experience and the deductions of reason and common sense, and those embracing these truths cannot go far astray.

J. K. ANDERSON.

CHAPTER I.

THE VITAL ORGANS.

UNDER this head, those organs of the body are referred to, which are concerned most intimately in sustaining animal life,—without the action of which, death must inevitably ensue,—organs which form the basis of all beings possessing organic vitality.

The Nervous System.—The BRAIN is the seat and origin of all the nervous forces.

It is made up of bundles of nerves. It is the seat of mental action. Its organic conformation is affected by the action and growth of the different characteristics of mind. Demonstrations in the science of phrenology prove this beyond a doubt. Man, in his original state, was created, doubtless, with a perfect balance in the size and activity of the different phrenological organs. But since the fall a want of proper balance has characterized the whole human race. All the organs of the brain subserve important purposes, while their action is kept within the limits originally intended for them. Even since their first derangement and perversion, they are never so extravagant in their action as to be absolutely ungovernable, so as to destroy the accountability of their possessor.

Sometimes those phrenological tendencies are so strong that it requires great firmness and determination to control them. These tendencies are partly congenital, and partly the growth of habit. For the existence of those which are strictly inborn, no one himself is re-

sponsible ; but for those tendencies which are the result of habit, every one possessing them is answerable. And as there are no inborn tendencies which cannot be governed, and as no one is responsible for their existence, there is no sin in their abstract being ; but the sin lies in allowing them any inordinate action. If they are originally extravagant, they can be governed ; and if governed, there will be no increase, but rather a decrease, in the proportion of their action. So that, on the whole, it is not the phrenology which gives habitual character, but habitual character which makes phrenology. A man's phrenological character will mainly be the product of his own habits of thinking, feeling, and acting.

Hence the importance of every one's knowing his own phrenological tendencies, and essentially modifying them, by suppressing what is bad, and cultivating what is right. A knowledge of one's own phrenology helps a man to analyze himself. Hence, too, the importance of mothers having a practical idea of the peculiar phrenological tendencies of each child ; that they may know how to apply physical and moral discipline to the best possible advantage to the children under their care ; for it is in the power of mothers, in a great degree, to give a correct phrenological character to each child under their tuition. Every mother should make herself acquainted with the fundamental principles of phrenology and physiology, that she may be able to give such a physico-moral discipline to the child, as will do honor to herself as a faithful mother, and work out the physical and moral salvation of her child.

The NERVES, proceeding as they do from the brain, carry out its influences and commands into all the

functions of the animal economy. From it go out various branches of nerves, to transmit, like so many telegraphic wires, the electric fluid which is inseparably connected with the vital action of every part of the body. The nerves generally run in pairs from the brain and spinal cord,—the great nerve of the back bone,—to all parts of the body. A pair of nerves are contained in one cord. One of this pair is the medium of sensation, and the other of motive power. The one communicates feeling to and from the brain and all other parts of the body; the other gives the power and the command of motion of every part of the muscular system.

These nerves are, so to speak, the telegraphic wires by which every part of the body, in regard to its sensations and motions, holds intercourse with every other part. They form the medium through which the brain receives intelligence from other parts, and governs and controls all the organs of voluntary motion. If, in the darkness of night, the end of the finger of the extended arm should touch a burning iron, a message by sensation would be forthwith sent from the burning end of the finger along the electric line to the brain, the general telegraph office, and immediately a command would be sent back, through the nerve of motion, commanding the removal of the finger. In this way, despatches are continually sent, during the active hours of life, on matters pertaining to motion and sensation, to all parts of the system.

Sometimes the nerves, by some injury, cease to operate,—cease to transmit their electric fluid furnished from the great galvanic battery, the brain,—by which the brain, or the will through the brain, ceases to command and control motion, and by which sensation is

destroyed. We sometimes find a limb in what is called a sleep. This condition is caused by cutting off the circulating electricity in its course, by pressure on the nerve of the part. The pressure being removed, the electric fluid flows on, and sensation and power of motion gradually return.

Sensation and voluntary motion are not only dependent on a right electric circulation, but also those functions which involve involuntary action. Digestion in the stomach and the pulsation of the heart are carried on by electric forces. Cut the nerve communicating with the stomach, and digestion ceases; apply an electric battery, and digestion progresses again. The circulation of blood, through the heart and arteries, is doubtless kept up by the attractive and repulsive forces of electric currents. All the forces of nature, in the circulating system, are greatly dependent on this electric agency. The wounds of palsied limbs are far slower in healing than of other parts. No vital function can be properly carried on, without a right performance of the electric forces.

In view of these facts, great pains should be taken, by those who care for health, to preserve the nervous system in a perfectly healthy state. Everything which tends to impair its tone, impairs the tone of the vital forces of every function of the body. And not only are these physical functions injured, but the mental forces also; for the nervous system is the connecting medium—the medium of sympathy between mind and matter. Hence the wretched economy of all stimulants and narcotics on the nerves. The injury done to the electric forces by the use of such agents as the habitual use of tea, coffee, alcohol, opium and tobacco, and

especially the latter, is far greater than is generally supposed. The influence of these articles is permanent and irretrievable; yet their influences are so deceptive to their lovers, that few have understood their destructive power. Their exhilarating force, felt on taking them, blinds the mind to their reacting influence which must follow. Alcohol burns up the system by its carbon and inflammable gases, so that spontaneous combustion of the whole body sometimes takes place.

The Circulating System.—The HEART, ARTERIES, VEINS and CAPILLARIES are the principal organs through which the circulation of the blood is carried on. In the circulation of this fluid through these vessels, the heart receives into its right ventricle the blood conveyed to it through the veins. This is called venous blood, and is of a dark color, on account of the amount of carbon contained in it. From the heart it is thrown into vessels contained in the lungs, by which it comes in contact with the air. Here it undergoes a change, and is returned to the left ventricle of the heart. Thence it is carried by the pulsating forces of the heart and arteries throughout the whole body. It is first thrown into large arteries, which divide themselves off into smaller ones, till they are reduced to the smallest conceivable ramification of vessels, called capillaries, for the distribution of the blood to every part of the solids of the whole body. This object being accomplished, the remaining portion of the blood is returned by the veins to the heart.

In this way matter is carried to all parts of the system, for the supply of the waste that is constantly going on. In the young there is not only waste of matter to be replaced, but matter is needed for the growth and the perfection of the body. In persons of ripe growth there

is matter constantly given off by the surface of the body, the lungs, and the organs of secretion and excretion, which must be replaced with fresh matter, or the body would soon perish. In this way there is a constant change going on in the system, by which, once in about seven years, all the matter composing the body shall have been given off, and new matter supplied; so that now we possess none of the matter which composed our bodies seven years ago. We are identically the same persons, but the matter composing "the house we live in" has been wholly changed.

In view of these facts, a pure and healthy state of the blood is of vast importance. If we create impurities in the blood, they are carried to all parts of the fluids and solids of the whole body, and must, in some way, sooner or later, develop their fruits. Hence the importance of having our food and drinks free from all tendencies toward such impurities; for the blood is supplied, as will soon be seen, from our food. If we use food adapted to create cancerous, scrofulous, or any other humors, we run the risk of having such humors develop themselves, sooner or later, in some part of the system. It may require a series of years for them to be exhibited, when it may be too late ever to eradicate them from the strong hold they have gained.

After the blood of the arteries through the capillary vessels has given off its nutritive matter, as described, to every minute portion of the body, which nutritive matter consists in the red globules contained in it, made red by the oxygen with which they are impregnated, it is taken up by the veins which are distributed through all parts of the body, and returned back to the heart. While on its way to the heart, just before reaching that

organ, it is met by the great duct, called the thoracic duct, which conveys into the returning blood the nutritive properties of the food, extracted from it by the digestive organs. With this new supply of nutritious matter, the blood goes to the heart, and then to the lungs, to receive a change by contact with the air, and continues its routine of circulation.

The speed of action in the heart and arteries varies according to age, exertion, and excitement. The number of pulsations per minute in the unborn child, varies from 135 to 175; after birth, from 100 to 120; in adult persons, from 70 to 75. As age advances, pulsation grows slower. At the age of 60 to 70 years, it becomes reduced to 60, or a pulsation every second. The pulse of females is quicker than that of males. Motion and exertion increase the number of the pulse. Standing up instead of lying down increases it. Mental excitement greatly accelerates its motion. Stimulants, which produce a morbid excitement of the nervous system, increase the action of the heart and arteries. A draught of alcohol, a quid of tobacco or cigar will increase the pulse. A single cigar, by the fever it excites, will add from 15 to 20 beats per minute. These stimulants produce a diseased action and excitement of the heart and arteries, and thus induce a feverish motion in the pulse.

It is calculated that the blood of an ordinary man will weigh about thirty-five pounds; and that the whole blood passes through the entire circulation in about two and a half minutes.

The Respiratory System.—Respiration essentially consists in the interchanging of certain elementary principles contained in the blood, for those contained in

atmospheric air. The Lungs, and the Skin, form the medium through which this interchange is made.

The LUNGS consist of an infinite number of small cells. Connected with these are small tubes, branching out from the bronchial tubes, and these tubes branching from the trachea, or windpipe. At every inspiration of air, these cells become filled. At every expiration of air, these cells are nearly emptied. When air is received into the lungs, the blood sent from the right ventricle of the heart meets it. Here the carbon of the blood is thrown off in the form of carbonic acid gas; while the oxygen of the air taken into the lungs, is taken into the circulation of the blood, and carried to every part of the body. Together with receiving oxygen, electricity is also received and distributed throughout the body.

The amount of nourishment derived from food bears a close relation to the amount of oxygen received into the circulation. The oxygen is also essential in giving heat to the body. The carbon of the blood becomes united with the oxygen, the oxygen consuming the carbon and forming carbonic acid gas; therefore the amount of natural heat depends on the amount of oxygen received into the lungs, and the amount of carbon of our food; by which, uniting with the oxygen of the air, animal heat is at once generated. The amount of air breathed, also, has to do with physical strength. The eagle has great physical power, because it inhales a very large amount of air. The oxygen, essential to nutrition, and the electricity, essential to nervous force, are taken into its lungs in very large proportions.

The blood from the veins, conveyed to the lungs, is of dark color, on account of the carbon it contains. Here an excess of carbon is given off in the form of

carbonic acid gas, and a corresponding amount of oxygen from the air is taken in. This process of exchanging carbon for oxygen, changes the color of the blood; it gives to it a bright crimson complexion, which it retains till its oxygen is dispersed to the remotest parts of the body; then the blood is taken again, comparatively deoxydized, into the veins to be returned to the heart and lungs. The blood and air in the lungs meet and exchange their gases through the medium of a thin, delicate membrane, which prevents the blood from entering into the air-cells. When this membrane is ruptured, there is bleeding at the lungs.

It can easily be conceived, from these facts, how important to the welfare of the whole system is the breathing of good air. If the atmosphere which we breathe is impregnated with hurtful gases, their influence is carried through the blood to every part of the body. If we are shut up in a close room, especially for the night, where the occasional opening of the door cannot be depended on for relief, we use up all the vital properties of the air in the room, consume all the oxygen, and give off carbonic acid gas; so that it becomes very offensive to one just entering the room, and very unhealthy to breathe over and over by the individual occupying it. We cannot be too careful to have a free circulation of air in our sleeping apartment. Every school-room should have a ventilator at the top of the room, where the bad air which rises can pass off, and give room for a fresh supply.

If we are compelled to breathe air that is hurtful, it weakens the lungs, exposes them to disease engendered in their own cavities, or to disease carried to them from abroad. Many cases of bleeding at the lungs and of

consumption have been induced by protracted causes of this kind. Whenever we find a sleeping-room whose effluvia is unpleasant, we may know that its occupant is subjecting not only his lungs, but his whole system, to influences that are destructive to health, and ultimately to life itself. No air is fit to be breathed that has parted with its due proportion of oxygen, or is unduly charged with carbonic acid gas. Unless the air to be breathed retains its natural equilibrium of elements, it is unfit for the healthy purposes of respiration.

Consumption of the lungs has several different causes. One consists of those things which directly prostrate the vital forces: such as bad air, already described, and air vitiated by poisonous vapors, which directly enervate the texture of the lungs. Tobacco-smoke is one of those poisonous vapors, which not only weaken and irritate the air-cells of the lungs, but, meeting the blood as it comes up to receive its oxygen, sends its narcotic essence throughout the whole course of the blood-vessels. Anything, indeed, whether received into the system through the lungs, or in any other way, which weakens the powers of life, predisposes to consumption, as well as other forms of disease. A large proportion of consumptions arises from severe and protracted cases of dyspepsia. Sometimes foreign substances, dust and other hurtful matters, obtain access to the lungs, and irritate and inflame them. Vast damage has also, in past times, been done by pressing the lungs out of their place, and oppressing their expansion by lacing; on which subject it is not now necessary to enlarge.

The SKIN is also an organ of respiration. As the arterial blood flows out through the arteries into the capillary vessels, which unite the arteries and veins, it

then gives off a portion of its elements to the atmosphere. It gives off a portion of carbon in carbonic acid gas, and receives a portion of oxygen from the surrounding air. It also transmits electrical influences which communicate between the body and the atmosphere. The healthful condition and action of the skin is greatly essential to health. Bad air will have its influence. Miasmatic influences take advantage of the fact that the skin holds, in a great degree, the destiny of the body. If the action of the skin be retarded by having its pores and capillaries obstructed, there will at once be disturbance throughout the whole system.

There is great sympathy between the skin and the internal organs. When the functions of the skin are deranged, there is disturbance in the action of the kidneys, which secrete from arterial blood elements which are not further needed. It also influences the liver, whose office is, the secreting and carrying off of matter collected from the blood circulating in the veins. The lungs, too, hold a close sympathy with the action of the skin. The whole system is affected, when the skin suffers. Hence the importance to be attached to keeping the pores unclogged, by suitable washing, and unembarrassed by wrong sleeping arrangements. There should be needful bathing, but not excessive: the pores kept open, but not stimulated beyond their due action: and entire abstinence from the false and hurtful luxury of feather beds.

The Digestive System.—There is no part of the human system which has such controlling influence over the whole body, as respects health or disease, as the Digestive Organs. Any derangement in these, especially the stomach, calls up a sympathy of action from the

whole animal economy. Nearly all the morbid actions found in the general system are produced from causes first operating on the stomach. Hence, keeping the digestive system in a healthy state secures, as a general rule, a healthy action in every other part of the physical organization. Therefore, to know something of the anatomy and physiology of the digestive organs, together with the laws of digestion, seems indispensable for every individual who would know how to take care of his health.

By the term digestive organs, are meant the Mouth, Stomach, Liver and Bowels, including the whole alimentary canal, commencing with the mouth and terminating with the extremity of the bowels. Extending through the whole length of this canal is a lining membrane, called mucous membrane, continuous throughout, from the lips to the opposite extremity. This membrane is filled, throughout its whole distance, with minute blood-vessels, and in some parts abundantly supplied with fine filaments of nerves.

The MOUTH, with its teeth and glands, commences the digestive process. The teeth are to masticate the food. The salivary glands give important aid, too, in digestion. There are three pairs of glands which pour the fluid which they secrete into the mouth. This fluid is called saliva. The effort of chewing excites these glands, and promotes the secretion of saliva, which is essential to the healthy digestive process. It is this fluid which is so lavishly secreted and cast away by tobacco-chewers. That which Nature requires for the welfare of the digestive process is wantonly and foolishly thrown away. The object for which the Creator made these glands, is perverted. They are overtaxed in the

amount they are made to secrete ; and this constant over-draft, of itself, tends to lessen the vigor of the system.

The saliva is formed from the blood ; and an excessive flow of it gradually diminishes the necessary quantity of this vital fluid. This being thrown off, the digestive organs are deprived of their due quantity to sustain properly the divine economy of animal life. Hence, sometimes tobacco-chewers have found that, on swallowing its juices, they have made themselves in better condition than when spitting it off. Although by this process they get more of the narcotic poison of tobacco, yet the saving of that important fluid, the saliva, has more than compensated them. How much better that men who profess to be above brutes, put away a habit so low and unnatural that brutes will not descend to it ; and cease to pervert this order and law of Nature, on which ultimate health and the natural duration of life depend !

The STOMACH is the most important organ of digestion. It has three coats : that which has most to do with digestion is the mucous coat, which lines it. This coat is supposed to furnish by its glands what is called gastric juice, which is the principal agent of digestion in the stomach. This organ is abundantly supplied with nerves, and holds a very powerful sway over the whole nervous system ; so that, when the stomach is under the influence of disease, either acute or chronic, the whole system is immediately in a state of suffering. To secure, then, a healthy system, the stomach must be kept in health.

The LIVER has to do with digestion. This organ furnishes the bile. It is the largest gland in the body.

Its office seems to be, to gather from and carry out of the system, substances which, if retained, would prove hurtful. When the liver is inactive, we have what is called jaundice; the liver failing to take up from the system that substance which forms the bile. When this is the case, a yellow substance is found diffused throughout the entire system; the white of the eyes, and sometimes the surface of the whole body, exhibit a yellow tinge.

The bile, when properly secreted and discharged, meets the contents of the stomach as discharged into that part of the bowels nearest the stomach, and is there supposed to assist in the process of separating the nutritious part of the contents from the refuse which is to pass off by the bowels; but its more important office, doubtless, is to aid the passage of the refuse, or the feces, by evacuation. The bile seems to be Nature's appropriate stimulus to the bowels, without which, costiveness and other irregularities are likely to ensue.

The BOWELS contain the absorbent vessels, called lacteals, which take up the nutritious part of food, and carry it into the circulation of the blood for the support of the system. They consist of small tubes distributed along the course of the bowels, especially the small intestines, whose mouths suck up the chyle, conveying it into the thoracic duct, and thence into the venous blood, before it reaches the heart. The bowels then convey the refuse part of the food out of the body.

The whole length of the intestines is from six to eight times that of the whole body. The mucous membrane which lines them, as before stated, is continuous from the mouth to their extremity; and such is the sympathy of one part with another, that an injury to that portion

which lines the mouth and stomach may manifest itself upon its other extremity. Tobacco, by its poisonous power in the mouth, has sometimes produced the most inveterate piles.

The functions of the stomach, of the lungs, of the skin, and of the brain, are those which we can most direct and control—so much so, that we hold in our own hands the power of preventing many of the diseases to which they are liable, according to our knowledge and application of the natural laws by which they are governed.

When you examine a plant, and observe its roots spreading in all directions around, for the purpose of extracting nourishment from the earth, you see precisely what occurs in the nutritive organs of animals. Minute branches of vessels, like roots, covering the inner surface of their intestual tube, absorb the nutritive particles of the food, and carry them to the blood. We will trace our food, from its entry by the mouth through the stomach and intestines, which will bring before us the organs and processes of digestion and nutrition. The food is, or ought to be, minutely ground by the teeth, and blended with saliva, to prepare it for digestion. On its arrival in the stomach, it undergoes some peculiar process by admixture with the gastric juice. Much changed in appearance, the chyme, as it is now called, enters the intestine, where it meets the bile sent in from that large organ the liver. The effect produced by the admixture of bile is not precisely understood, but it is supposed to facilitate the elimination of those particles, which, under the name of chyle, are separated from the bulk of the food, and absorbed by innumerable vessels on the inner coat of the intestines. The chyle has the

appearance of milk, and passes from the small vessels which absorb into larger ones, and ultimately into one main branch called the thoracic duct. The duct opens into a large vein near the heart, and thus, for some time after taking food, there is a supply of fresh matter to mix with the blood, and restore to it the principles which are constantly wasted by muscular motion, and other functions of the animal body.

A little reflection will show the importance of supplying the stomach with sound food, in order that none but particles proper for the renovation of the blood shall be introduced into the system. If our food is of too poor a nature, a sufficient quantity of nutrient particles to supply waste is not absorbed,—if too rich, the contrary happens; but the most common error is improper food.

CHAPTER II.

MASTICATION OF FOOD.

MASTICATION, or chewing, is the first step in the process of digestion. When food is taken, it should be thoroughly masticated before it is suffered to pass into the stomach. Without chewing, the food is too coarse and gross for the stomach, and is unprepared for the action of the gastric juice. Besides this, the action of chewing causes the food to be mixed with the saliva, which is an important item in the preparation of it for the action of the stomach and its juice. The food should therefore be finely broken up, and thoroughly moistened with saliva. In order to accomplish this end, it is highly necessary that food should be taken with sufficient moderation to give time for the process of mastication, and the discharge of saliva from the glands of the mouth. Eating fast, or even talking while chewing, besides its incongruity with politeness and good breeding, is directly at war with thorough mastication.

Many persons seem to think that hurrying their meals to save time, is economy; their business drives them, and they drive their time of meals into the smallest possible compass. This is miserable economy; for when they hurry down their food, half chewed and half moistened with saliva, it deranges the process of digestion throughout; and, as a consequence, the food not only sits bad on the stomach, and in time causes

dyspepsia, but it fails to accomplish the sole object of taking it—the nourishment of the body. In order to derive nourishment from food, it must be well digested; hence it must be well masticated. When, therefore, we hurry our eating, we hasten our steps on the wrong road. Time curtailed in eating, is worse than hiring money at three per cent. a month. If we cannot spare time to eat, we had better not eat at all. This idea cannot be too deeply impressed; thousands, by this kind of careless, reckless eating, have found themselves the victims of dyspepsia and all its attendant train of evils. The digestive organs may bear the abuse a while without giving many signs of trouble; but the penalty of that broken law must, sooner or later, come; and it may come in the form of a broken constitution.

Formation of Chyme.—Chymification, or the transformation of food into chyme, is the next important step in the process of digestion. The food, after mastication, passes into the stomach; here it is formed into a homogeneous mass, partly fluid and partly solid, which is called chyme. What is the exact philosophy of this process, has been a matter of some discussion, into which it is not necessary now to enter; nor is it yet satisfactorily settled, so as to admit of any definite instruction being given.

The theory which is now generally received, respecting the manner in which the stomach acts upon food is, that the gastric juice possesses a solvent power, by which the food becomes reduced to a uniform mass. The solvent power of the gastric juice is very great in healthy, vigorous stomachs, but varies in strength according to the energy of that organ.

The solvent power of the gastric juice is evidently

controlled by the vital principle, or principle of life. While the gastric juice of a healthy stomach acts vigorously upon the hardest kind of food, yet sometimes, when it comes into contact with anything possessed of the principle of life, its power is stayed. Worms, while living, are not affected by it, but, when destroyed, are often digested.

The gastric juice possesses the property also of coagulating liquid albuminous substances. The stomach of the calf is used for this purpose by the dairy-women, in making cheese. When the infant throws up its milk because the stomach is too full, that milk will be more or less curdled; and, instead of considering this curdling an indication of disease, it should be considered a symptom of a healthy stomach.

The time ordinarily occupied in the process of chymification, when food has been properly masticated, has been ascertained to be from four to five hours. The first hour of this period is occupied in the process of intermixing the food, after it enters the stomach, with the gastric juice. After this is accomplished, an alternation of contraction and expansion of the stomach, or a kind of revolving motion, takes place, and continues till the whole mass is converted into chyme, and is conveyed to the first intestine, the duodenum, or second stomach, to undergo another change.

Formation of Chyle.—Chylification, or the formation of chyle, is the next great step in the process of digestion. This takes place in the duodenum. The chyme from the stomach is let into this intestine little by little. A valve at the lower opening or outlet of the stomach prevents it from passing any faster than it can be disposed of in the formation of chyle. This fluid is a thin,

milky liquid, extracted from the chyme, and then taken up by absorbent vessels, called lacteals, and carried to the blood.

The chyle passes slowly through the duodenum, and in doing so becomes mixed with another fluid furnished from the pancreas or sweet-bread, and the bile from the liver. Passing thus slowly through this large intestine, ample time is given for the lacteals to take up all that is valuable, to be carried into the circulation for the nourishment and support of the system. This chyle, taken up by the lacteals, is directly converted into blood ; and in many of its characteristics it very closely resembles blood. The process by which this conversion is carried on is called absorption. That class of absorbent vessels called lacteals is not only found in the lower part of the first intestine, the duodenum, but is distributed freely along the small intestines, and considerably along the large intestines, for the purpose, as before stated, of conducting the chyle in its appropriate course for the formation of blood.

Evacuation of Bowels.—Evacuation, or the discharge of the refuse part of food through the bowels, is another, and the last step in the process of digestion. This part of the subject has a very important bearing upon the condition of health. It is impossible for any one to enjoy good health while this office of the bowels is imperfectly performed. If the bowels are relaxed and irritable, the food is borne along too soon and too rapidly : this causes the process of chylification to be imperfect ; the chyle is imperfectly formed, and the lacteals have not sufficient time to absorb it from the mass. This prevents the food from nourishing the system. Hence, those who suffer from chronic diarrhœa may eat largely,

and yet grow weaker and weaker; their food does not nourish them; the nutritious part of it passes off through the bowels, instead of being taken into the blood.

If the bowels, on the other hand, are constipated, the consequences are no less unhappy. No one can possibly be well with costive bowels. The free and easy action of the bowels is as truly essential to health, as the free circulation of the blood. When the bowels are sluggish, the process of absorption of the chyle is retarded, and what chyle is absorbed is less pure and healthy; so the quality of the blood is impaired.

Besides the evils already mentioned, a costive state of bowels often causes a pressure of blood on the brain; also derangement of the nervous system—excitability of the nerves, nervous headache, depression of spirits, and a long catalogue of sufferings, too numerous for detail. Habitual costiveness impairs the tone of the stomach, and prevents its healthy action. Piles, also, with various degrees of severity, are often caused, directly or indirectly, by constipated bowels.

The causes of costiveness are various; and to point them out in detail would be, perhaps, a fruitless toil. But there is one cause, and a very common one, which claims attention here,—it is the habit of inattention to and neglect of the natural promptings of the bowels to evacuate themselves. Thousands on thousands, especially females, by a habit of checking the natural inclinations of the bowels to throw off their contents, have brought upon themselves an habitual costiveness, which, in time, has cost them immense suffering and wretchedness.

No one should ever hold his bowels in check, if it be possible to avoid it. It can be readily perceived, that

doing this would tend to diminish the natural effort of the bowels, and to collect their contents into a solid mass. Then the exertion required to empty the bowels, or the physic taken to aid and make effectual that exertion, tends also to increase the difficulty.

A habit of costiveness should always be removed, if possible; and the best way of doing this is by a course of discipline. Those articles of food should be selected which have an influence to keep the bowels open. Bread made of white flour has a tendency to constipate them. But brown bread, and bread made of whole wheat flour, have a tendency to open them; also molasses taken with food has an additional tendency. Fruits and vegetables, are adapted to relieve costiveness.

The influence of the mind should also be brought to bear upon this difficulty. The operation of the mind on the physical system is always great, especially in chronic complaints. A person with costive bowels should have a mental determination to have a natural evacuation of the bowels at some regular hour in the morning; just after breakfast should be preferred. By a mental calculation—by bearing the subject in mind—by thinking and desiring—by electrifying the bowels into action by the force of thought—by intending to have them move about that hour,—very much may be done by way of facilitating such a result.

But if, instead of attending to a favorable diet, and of thinking on the subject at the proper time, we treat the difficulty with medicines alone, we do harm rather than good; for the more alteratives we take, the more is the trouble increased. The physic only overcomes the constipation for the time, and afterwards leaves the bowels in a more torpid state. Rather than endure the

consequences of costiveness, it is better to take enemas, in conjunction with other means, until the difficulty can be overcome. No proper pains should be spared in overcoming this derangement of Nature, till a habitual and voluntary movement of the bowels, at least, once in twenty-four hours, is secured.

In this account of the digestive system, we see how our food is converted into blood for the nutrition of the body. The food is to be masticated in the mouth, formed into chyme in the stomach, separated into chyle in the duodenum, taken up by the lacteals, and conveyed to the veins. Then passing through the lungs, and receiving oxygen from the air, which gives to it its crimson color, it becomes prepared to nourish every part of the body, by supplying it with matter for its growth, or to meet its waste. The purpose of eating should be to accomplish this object. And we should confine ourselves to the eating and drinking of those things which answer this end. That the digestive organs may never be burdened with articles which cannot be converted into blood; and that the blood may never be adulterated with foreign substances, which can never be assimilated into flesh. The essences of tea, and coffee, and alcohol, and tobacco, can never be converted into blood, or assimilated into flesh; but they are taken into the blood as foreign substances, in their unconverted state; so that they not only produce a morbid excitability of the nervous system, but adulterate all the fluids of the whole body, and even show their effects in the complexion.

Time Taken for Eating.—Time for eating has claims for attention. If persons intend to have health, their meals should be regularly timed and distanced. There is much importance to be attached to the kind of food

which we allow ourselves to take ; but the time of taking it, together with the proper intervals between meals, has a much more important bearing on our health. Therefore, as just stated, meals should be regularly divided and distanced. A good common rule, for the time of meals for the laboring classes, is breakfast at seven o'clock, dinner at twelve, and supper at seven. But, at different seasons of the year, and with different classes and occupations in society, the time of meals must vary.

But, whatever hours may be selected as most convenient for meals, they should be uniform ; and for this reason : at the hour when the stomach is accustomed to receive food, the appetite is generally sharper, and the gastric juices more copious than they are immediately before or after that time. If food be taken before the accustomed hour, the stomach is, as it were, taken by surprise, and is not found in perfect readiness to receive it ; if the meal is delayed beyond the accustomed time, common experience teaches that the appetite is liable to lose its sharpness,—there is, for a while, less inclination to take food. The objection, however, against delaying a meal beyond the usual time, is very small compared with the objections against eating too soon ; because, when a meal or luncheon is taken soon after a previous one, the stomach has not had sufficient time to go through with the digestive process, and to recruit its energies for another effort. But when a meal is delayed longer than usual, though the appetite may lose its sharpness for a short time, yet it will return again ; and the digestive power of the stomach will not have been impaired, unless the period of abstinence should be of long continuance.

In the arrangement of regular meals, regard should be had to the hour of rest at night. Nine o'clock, as will hereafter be considered, is a favorable hour for retirement; and no food should be previously taken, in all ordinary cases, within the space of two or three hours. If food be taken too near the time of sleep, so as to leave no chance for the more active parts of the digestive process to be performed, there will be found generally a dull, heavy pain in the head on the following morning, with diminished appetite. The food has laid comparatively undigested through the night, because, when we sleep, the whole system is in a quiescent state; the nerves which are called into action in the process of digestion are, during healthy sleep, inactive. A late supper generally occasions deranged and disturbed sleep; there is an effort on the part of the nerves to be quiet, while the burdened stomach makes an effort to call them into action; and between these two contending efforts, there is disturbance—a sort of gastric riot—during the whole night. This disturbance has sometimes terminated in a fit of apoplexy, and in death.

Time Taken for Digesting.—Time for digesting what is eaten demands of every one who values health a most serious consideration. Ignorance on this topic, and inattention to its importance even when understood, have involved thousands and millions in untold suffering and premature death.

If it were possible so to impress the mind of the universe on this subject that they must obey Nature's laws, we should see a very obvious change taking place in the standard of general health. The larger portion of people have no rules for eating, but to eat, as they say, "when they are hungry;" having no regard to the time

of eating, or to time for digesting; but, like the short-fed beasts, take a little here and there, whenever and wherever they can get it. They think their own stomachs are a sufficient guide, in spite of facts and philosophy. Therefore, they eat whenever they feel inclined.

Their stomachs would, perhaps, guide them in the right way, if a morbid action of that organ had never been induced by previous irregularities and indulgences. But when irregularities have deranged natural appetite, and placed in its stead a morbid one, then appetite is no longer a safe guide. In any propensity of the body, there is a wide difference between the demands of healthy nature and morbid nature. Yielding to any demand from the latter, is wrong in principle, and bad in economy. This is not only true in relation to eating and drinking, but in regard to any other propensities of the body.

Three meals a day are sufficient for all classes of persons, under all circumstances, and of all ages. For persons having weak stomachs, and many persons of sedentary habits, two meals a day, rightly distanced, might be preferable. But no individual, whatever may be his age, his occupation, or his health, should take solid food more than three times in one day. No person can do more than this without transgressing Nature's laws. The reasons for this rule will soon be given.

An argument against taking food at regular intervals is often attempted from the fact that many dumb animals have no regular times of eating; and it is urged that these animals have no other guide than the dictates of Nature. In answer to this, it may be said, that the habits of dumb beasts, since the introduction

of sin into the world, under the weight of which "the whole creation," or, rather, as the original signifies, **EVERY CREATURE**, "groaneth, being burdened," are not always in exact accordance with Nature's rules. For instance, cattle are put into a lean pasture, and they are unable to gather a full meal at once; they are obliged, perhaps, to graze all day long to obtain sufficient subsistence. In such cases, to allow intervals between meals would be to undergo gradual starvation. But put dumb animals into full feed, and what do they do? They deliberately eat a full meal, and then cease eating till that meal is fully digested. Hence, the testimony taken from this source, when we make a fair test, is unequivocally and uniformly in favor of eating at intervals sufficient for digestion.

Eating at intervals sufficiently long to allow the full digestion of a meal before another is taken, is as truly essential to the good constitution and health of beasts, as of human beings. The time was, even within the limits of forty or fifty years, when it was customary, on driving a horse on the road, to feed him about every ten miles. This was enough to kill the poor animal; he had no time to digest his food, and derive nourishment from it; and it is well that such a system has been abandoned; and it would be better still, if intelligent beings would adopt a similar rule of diet for themselves, and those under their care. Those who drive horses for pleasure-riding or in teaming, at this day, having proved the folly of the old system, feed regularly three times a day.

Under this rule, the animals eat, on the whole, less in quantity, are found in better order, and endure much more: and why? because they derive, by obe-

dience to natural law, more nourishment from the same food, and do not break down the digestive organs by oppressing them with too oft-repeated meals. But when individuals live as they list, and eat when they please, in disregard of right rules of diet, they commit a crime against Nature. They sin against their own bodies, by committing gradual suicide; and the penalty of those violated laws must be met—there is no escape; the punishment will, in some way, sooner or later come; Nature will, without a single failure, take this matter in hand, and sustain the validity of her own laws.

Now for the whys and wherefores of these directions. In the first place, food must be thoroughly masticated. This requires about HALF AN HOUR; especially at dinner, which is, generally and properly, the principal meal for the day. Inattention to and curtailment of time necessary for mastication, is a violation of physical law at the very outset of the digestive process; and one which, more or less, deranges all the other steps. In the second place, when food is lodged in the stomach, it requires ordinarily about FOUR HOURS for this organ to perform its work, before the entire meal is disposed of and carried into the duodenum, or first intestine. Here are, then, at least four hours and a half required for the process thus far; and probably five hours are more often needed than a period short of four and a half.

Therefore, no two meals or luncheons should be allowed to come nearer to each other than a distance of at least FIVE HOURS; because, as any one can see, there is a regular routine of steps, in the process of digestion, to be gone through with in this space of five hours. And if a second meal or lunch be taken short of that period, it produces confusion; the process with the first

meal is interrupted ; the organs are obliged to stop their course, and begin a new process with the second meal ; there will be probably a struggle between the two processes, and both be imperfectly performed. By this course the organs are weakened, and the amount of nutrition, from the same quantity and quality of food, is much less.

The good effects of regular and simple diet may be seen by visiting our prisons. There the inmates are generally in possession of good health, notwithstanding their confinement and close air. Some have gone there greatly afflicted with dyspepsia, but have obtained a complete cure, and become robust ; and this at the time there must unavoidably have been a great and constant mental oppression. This is incontrovertible testimony in favor of plain and regular living.

Besides the positive injury done to the digestive organs themselves, by eating too often, and a sympathetic injury to the whole system, there is a sort of negative injury done to the entire system by the interruption of the process of nutrition. After breakfast has been taken, let a lunch be eaten about eleven o'clock, and the process of forming chyle is injured by the digestive energies being attracted too soon to the work of disposing of the eleven o'clock lunch ; and so on in the same manner, so long as meals and lunches succeed each other without giving at least five hours space for digestion. Hence, the system receives less nourishment from about twice the quantity of food per day, than it would receive under a regular, systematic diet, with a regular quantity.

It is argued by some, as just stated, that the inclination to eat is a proper guide to the time and frequency of eating. But if we eat ten times a day habitually,

the stomach is obliged to undergo such a change in its action, that we shall think we are hungry as many times. There comes up a disordered action of the stomach, and a morbid appetite ensues. What sort of a guide is a man's inclination to eat, who is just emerging from the prostrating power of a typhus fever? And why is it that those who are always eating are always hungry, while those who live on three meals a day are not inclined to eat till the regular meal-time comes?

But why contend against facts established by the researches of learned physiologists? They have given us the time required for digestion; we know that, this being correctly ascertained, we cannot interrupt that process without detriment. And who is willing to sacrifice justice to himself, for the paltry gratification of a moment? Thousands do it; but it seems too uncharitable to suppose they would do it with their eyes open, though it is to be feared too many are willingly blind.

Whoever knows no law but the fearful dictates of wrong appetites, is like a ship, driven by fierce winds coastward, without anchor. If we would do right—if we would act upon principle—we must obey every righteous law. That is a safe and prosperous government where obedience to law is sustained; that is a well regulated physical system whose physical law is obeyed. But how sadly this law is trampled under foot! How many there are who reverse one of the best rules of life! While all should EAT TO LIVE, they, impiously and wantonly, LIVE TO EAT. In this way, they destroy the very foundation of all true enjoyment from temporal sources, and prejudice the prospect for the future life. The old heathen adage, "Let us eat and drink, for to-morrow we die," is the sum and substance

of their theology; they know no God but their belly.

Time Taken For Exercise.—Time for exercise has an important connection with digestion, and is indispensable to health. It is important to the healthy state of body and mind. Bodily health cannot be secured without due attention to exercise. Persons of sedentary habits, especially, should give particular attention to this subject. Persons of active or laborious habits can make their business subserve the purpose of exercise, while those whose daily task requires little physical exertion need some other exercise. By such, let this part of the subject be particularly heeded. To illustrate what is meant, take the case of the shoemaker. His business chains him to the bench; it gives him insufficient bodily exercise; he is too much confined.

The shoemaker, then, or the man of similar occupation, should endeavor to have a garden to cultivate, if in the country, because this is one of the very best kinds of employment for exercise; it affords physical motion and exertion; it gives amusement to the mind, and it secures healthful influences from the earth. If this means cannot be secured, then resort should be had to cutting wood, or some other useful exertion; if this cannot be obtained, then he must resort to some artificial exercise; at all events, some kind of brisk and smart exercise should be had early in the morning, before breakfast. This gives activity and energy to the body, greatly invigorates the appetite, and exhilarates the mind. This rule applies to all sedentary habits.

Merchants and clerks should accustom themselves to considerable daily exercise of body, in order to preserve a balance of muscular and nervous energy. A great tax is laid on this class of men for the expenditure of nerv-

ous forces. To preserve these, the muscular energies must be kept awake by some timely means. Each secular day should have its portion of time for this purpose. A short space each day might save many a broken constitution or premature age.

Persons devoted to the mental labor of study and writing claim a share of attention. Their principal physical exercise should be taken on an empty stomach, i. e., just preceding a meal. Just after a meal, they should be at leisure, or amusement which requires no mental or physical exertion, for at least one hour. Then they are prepared for close study until near the time of the next meal ; leaving a little space for relaxation ; as also when bodily exercise precedes a meal, a few minutes' relaxation before eating should be had, that the nerves may regain their equilibrium.

But when exercise is spoken of in relation to this class, that which would agitate or exhaust the body is not meant. Such exercise would be decidedly detrimental. If they would give time for eating and for digesting, they could perform a large amount of mental labor with far less time devoted to mere exercise, and that exercise of a milder character, than would otherwise be required. But every one should accustom himself to some brisk, lively, cheerful daily exercise, if he values his health. The same rule applies with equal force to all, whatever may be their calling, whose labors are of a mental character. Under these rules, three hours of close study would be worth more than six in the ordinary way.

If students and professional men would preserve health, they must keep an equable balance between the physical and mental systems. This cannot be done

without a portion of time devoted to some systematic physical discipline. That discipline should consist of something which not only gives exercise to the body, but amusement and exhilaration to the fatigued mind. If this can be gained by the use of mechanical skill which can give a small income, it will add to the pecuniary resources of those whose means are limited. But if the only practicable means of muscular exercise and mental exhilaration must consist of something that is of no pecuniary advantage, it is still of vast importance; for, though it can furnish no money, it will secure that which can nowhere be bought with money. A ten-pin alley, aside from its bad moral odor, is one of the best modes of exercise. The gymnasium furnishes the very best plan, doubtless, on the whole, for giving bodily vigor. Both of these call into labor the muscles of the arms, chest and abdomen.

Time Taken For Labor.—Severe exertion of body or mind, immediately after a full meal, should be avoided. No man should put himself to the severe exertion of mowing grass, pitching hay, planing boards, or severe exercise of muscular system of any kind, for about an hour after eating; and especially after dinner, which is generally the largest meal. Every man can generally avoid it, if he choose. “Where there is a will, there is a way,” is a vulgar, but a true proverb in such a case. The daily business of some men is not of a kind to require such exertion as would need to be suspended on this account; but where it is, this law must be observed, or damage will finally be felt. A man will sooner wear himself into old age and the grave, for neglect of this natural law. The same rule applies equally to mental labor. No man should put himself to close study imme-

diately after a full meal, neither to close office-work, or teaching, or public speaking. In the latter, there is not only too great mental, but also physical exertion.

Now for a reason for this rule; let the dinner be taken for an illustration: why should we rest from much exertion after taking our dinner? And this rule applies with equal force to all classes of persons and all kinds of business, which require severe muscular or mental exertion. The reason is this: while the food is being mixed with and broken up by the gastric juice, which process generally occupies, in the case of a dinner, full one hour, the nervous energies—electric forces—of the whole system are drawn into sympathy with the stomach, and made tributary to this part of the digestive process: their aid is needed: this is a law which Nature has established, and it should be obeyed—i. e., nothing should be allowed to interrupt this natural arrangement. But, if we allow ourselves to make much bodily or mental exertion during the hour mentioned, we distract this arrangement; because, when bodily exertion is made, the nervous energies are required and drawn in that direction, in aid of the muscular forces; or, if the mind is made to labor, then the nervous energies are called in that direction. Hence, when body or mind is taxed considerably immediately after eating, the process of digestion is much disturbed and interrupted.

Everybody's experience corroborates the truthfulness of this theory. We know that after a full meal, especially a dinner, there is a disinclination to much bodily action or mental effort; so strong is the draft upon the nervous energy, or nervous fluid, or animal electricity, whichever it may be called, that it is with difficulty we can call it in any other direction. Therefore, to make

much exertion of body or mind immediately after a meal, is to violate a law of the animal economy. To attempt hard work, or study, within one hour after eating, will induce in any one, except the most vigorous system, with a cast-iron stomach, derangement in the functions of the digestive organs ; the food will not digest so well, and the system will not be as well nourished from the same quantity of food. Hence, the whole system is impaired, its vigor and durability are diminished, and life is shortened.

It is in vain that we contend that Nature has no rules—the Maker of these bodies no laws—violated law no penalty. It is worse than idle to say, Here are A, B, and C,—they have lived to a great age—have been robust, and have never observed these rules. The general rule is one thing, and the exceptions are another. These instances appear to be the exceptions to a general rule. But are they really and in all respects exceptions? Because some who have kept their bodies and souls in a gradual steeping of alcoholic liquor, have been apparently robust, and have lived to old age, is it proved that alcohol has never done them injury? But, while one has lived a long life in violation of law with seeming impunity, a hundred and one, especially of those who have followed sedentary habits, literary men in particular, have gradually ruined their constitutions.

Whoever has intelligence enough to know that Nature has laws, is in duty bound to obey them, and not run the hazard of laying temptations for disease. And whoever will take the safe side of this matter, will always find it for his good. Even the farmer, in the busiest season of the year, will find obedience to law to be for his interest. Let him confirm—and his men with

him—to the old maxim, “after dinner sit awhile,” even one hour,—or, what might be better, instead of sitting idle, let all hands do some light matter, such as arranging and preparing tools,—and he will find, in the long run, more work accomplished, with less expenditure of strength.

Let them work lightly for an hour,—just as they would treat a valuable horse after a full meal,—and then closely task their energies until the time of another meal. This light exercise, immediately after eating, if it be something artificial, i. e., got up simply for exercise, should not only be light, so as not to require real muscular exertion, but it should be something that is adapted to amuse and exhilarate the mind. The state of the mind has much to do with the health of the body, and especially the healthy and free action of the digestive organs. Hence, it is exceedingly important, in all efforts at exercise, that the mind be interested in whatever the hands undertake. Anything that is a piece of drudgery to the imagination, would be of little service to the body.

The fact that the nervous energies are attracted in the direction of the digestive process immediately after a meal, which renders any considerable physical or mental exertion at that time particularly burdensome, is proved true in the conduct of dumb animals. When the ox or the horse has grazed a full meal, he immediately becomes indisposed for exertion or activity. And the same rule should be observed, in regard to his labor, that has been recommended for human beings; he should never be forced into hard labor short of one hour after he has eaten his meal. The ferocious animals, when they have taken a full meal, lose for a time their

fierceness, and are comparatively harmless. And so it is with men: if it be necessary to ask a favor of a morose or tigerish man, seek an interview immediately after dinner; if a charity is to be solicited from a creature who carries a miser's soul within his encasement of flesh, see him immediately after dinner. At any other time than after a full meal, he would resist, and succeed, probably, in warding off every motive; but while the nervous energies are taxed with the digestive effort, he cannot rouse himself so well to meet the emergency. He will rather grant the favor asked than annoy himself with the effort necessary to repel the invader.

If a laborer commence hard work immediately after eating, the action of his nervous energies is distracted; partly drawn toward the stomach, and partly forced in the direction of the muscular system. By this unnatural forced action of the nerves, the digestive process is impaired; the food is not thoroughly broken up by, and mixed with, the gastric juice. By this unlawful operation, the food is comparatively unprepared for all the rest of the process. The chyme and chyle must be imperfectly formed, and the system, so far as each such meal is concerned, imperfectly nourished. Besides this, the forcing of the muscles to exertion against the natural inclination of the nerves to supply the necessary power, gradually impairs the power and activity of the muscular system.

The man who disregards this law will grow old faster—other things being equal—than the man who allows time for the thorough digestion of his food. It is food which sustains him in labor; therefore, he is in duty bound to give that food the best possible opportunity to give him support. The same law prevails in dumb ani-

mals as in man. Whoever drives his horses immediately after their eating, will find in the course of an experience sufficient to test the point, that they, under such a management, will soon wear out; while his neighbor's beast, under a treatment which accords with Nature's law, will be robust and endure. It is economy, then, as well as health, to yield obedience to this natural law.

Mental labor should never be attempted within one hour after a meal is finished. If a close mental application be made immediately after eating, whether it be a merchant casting accounts, or a student studying his lesson, the digestive process is impaired; the nervous energies are drawn, in a measure, away from the direction of the stomach to the brain. This unnatural action frequently causes an increased quantity of blood to be lodged on that organ, occasioning a dull, heavy headache. Sometimes it will bring on a nervous headache. The influence of this course is also very injurious to the stomach. Hundreds and thousands of students and professional men have in this way brought upon themselves dyspepsia, with its long train of untold symptoms and sufferings.

Many a one has in this way broken irremediably his constitution. With too little physical exercise at the right time, and with mental labor at the wrong time, he has ruined himself for life, or brought himself to a premature grave. Many a one has gone through a regular course of education,—prepared his mind for usefulness,—but, by having neglected the laws of his body,—neglected to keep up a proper balance of action between his physical and intellectual powers,—he has rendered himself disqualified for much execution in the callings of life. His mind, though well disciplined, cannot act

without a healthful body; the bodily energies when deranged and weakened hold the intellectual faculties in a state of comparative imbecility.

Dr. T. L. Nichols truly says: "If we know the laws of health, we can prevent, or, failing of prevention, we can cure, disease.

"The preservation of health, which is the prevention of disease, should be our first object; and when health is lost, seek for a natural cure.

"Health is the natural condition of every living thing. All creatures living in their natural conditions have health.

"Health gives to us full and perfect development of body and mind, with all the strength, activity, and enjoyment of life which naturally belong to us. So far as this life is concerned, it is the condition of our highest use and happiness.

"As health is the natural result of conformity to the laws of Nature, disease, or the absence of health, must be the result of the violation of those laws; and to live a pure, healthy and happy life, we have only to satisfy our natural wants—to live in harmony with the world around us.

"The basis of this harmony is in the proper building up, nourishment and sustentation of the bodily life. All living things, vegetable and animal, are built up from minute germs, by matter which they gather from the world about them. The daily waste of animal matter by nervous and muscular action is repaired by food. Life depends upon diet. The character and perfection of life depend upon the nature and perfection of the diet. Health rests very largely on dietetic conditions; and the

restoration of health depends upon the same principles as its preservation.

“This is our common experience. Every plant requires its natural food for its health, growth and natural development. Maize will flourish on a soil which will not produce wheat. The oak grows from a rock where its roots can reach no soil. The willow flourishes in sand if it have but water. Many plants live wholly upon air. The Canary bird lives best upon its canary seed; the parrot cares only for maize. The monkey revels on fruits and nuts. Horses, cattle, deer and sheep flourish in perfect health on grass, from which they draw strength, beauty and the perfection of their life.

“When our domestic animals become diseased from unnatural modes of feeding, what is the proper cure? The usual one is to send for a veterinary surgeon, and have them bled and blistered and drugged. The natural method is to turn them out to grass, and let Nature cure them in her own way of the effects of artificial and depraving conditions. To keep well, or to get well, a horse needs only pure air, pure water and a good pasture. To keep well, or to get well, a man needs precisely similar conditions—the air, water and food best adapted to build up and sustain his daily life.”

CHAPTER III.

THE QUALITY OF FOOD.

ALL our nutrition comes primarily from the vegetable kingdom. If we eat flesh, the nourishment which made that flesh came from vegetables. The nutrition from the corn on which the hog is fatted becomes assimilated into his flesh ; and, by eating that pork, we get the nutrition of the corn, animalized, after passing through, and having been incorporated into, his system ; or, if we eat pork that has been fatted on dead animal matter, we get our vegetable nutrition after its having passed through two processes of assimilation. But it is proposed to speak here of taking vegetable nutrition in its original state.

This was unquestionably the original method adopted by Nature for the nourishment of man. Man, in his original, holy state, was provided for from the vegetables of that happy garden which was given him to prune.

While it is not my object, however, to insist on entire abstinence from meats, it is due to show to Americans, who are eating more flesh than any other civilized nation, the English as a body not excepted, that the proportion of their meats to their breadstuffs is enormous and detrimental. Living on the breadstuffs and other productions of the vegetable kingdom is undoubtedly the most natural and healthy method of subsistence for man.

There never was, probably, an erroneous notion of such universal prevalence as the idea that muscular strength and endurance depend on animal diet. Science and facts are both at war with this error. What is it which makes blood and flesh, and gives permanent force to muscular fibre? It is the nutritive properties of food. The breadstuffs contain as large a proportion of nutritious matter as the meats. As much blood can be made of the grains, as of the same quantity of animal food. In other words, the elements of nutrition essentially forming the chemical components of the blood, out of which all the solids of the body are made, are contained as largely in the breadstuffs as in flesh. These elements are Fibrine, Albumen, and Caseine.

These elementary principles, found largely in the gluten of wheat, are indispensable to the maintenance of life—the supply of material through the blood for the formation of muscular fibre, and the constant waste of organized substance. When this supply is cut off, the body begins to waste, and finally dies. But there is no intelligent chemist or physiologist who will deny that, where the breadstuffs form the principal food, without the use of flesh, the system is as thoroughly furnished with material for its supply of organized substance, as when meats are used. Articles embracing these elements are called AZOTIZED substances, because they contain azote—an element essential to the formation of muscular fibre.

There are other elements essential to the vital process of respiration, which, though they have nothing directly to do with the formation of muscular fibre, are nevertheless indispensable to the maintenance of life. Articles containing these elements are called NON-AZOTIZED

substances. The principal ingredient in these is carbon. The union of carbon and oxygen, by respiration and the consequent chemical changes which occur, generates the heat by which the body is kept in an equable temperature in all kinds of weather and climate. The carbon is burned, as it were, by the oxygen, and heat is evolved. Where there is a deficiency of one or the other of these two, there consequently is a diminution of healthy animal heat.

Here we meet another popular error in regard to the indispensable necessity of animal food, viz., that, without meats, sufficient animal heat cannot be maintained for cold weather. This, however, is a kind of faithless theory in the mind of those who advocate it; for they eat the same quantity of meat in the hottest weather that they are accustomed to use in the very coldest; and at the South they use meats, especially the fat of pork, altogether more largely than at the North. But what is the scientific basis of this conclusion? It has none. The carbon, which is essential to the production of animal heat, is contained more largely in the breadstuffs than in the meats. The wheat and other breadstuffs contain not only gluten, the basis of animal fibre, but starch, containing carbon, the basis of animal heat. Hence, bread made from the entire grain may, with scientific exactness, be called "the staff of life."

A much larger proportion of carbon is contained in starch than in flesh. According to Dr. Carpenter, four pounds of starch contain as much carbon as fifteen pounds of flesh. How, then, is the eating of flesh to favor the generation of heat more than bread? Here this notion meets an overthrow at once. An inhabitant of the frigid zone may live on oil, and tallow, and fat,

which largely contain carbon, and dispose of it, if to no advantage more than that from the carbon of bread, yet without the damage he would experience from its use in a temperate or hot climate. But that the carbon of bread could not sustain him in Greenland, remains to be proved. Science says he could be sustained on bread. Facts, too, so far as tested, are stubborn things, both in regard to the influence of bread on muscular fibre and on animal heat.

Among the enormous flesh-eaters of America, few have given this matter a fair test. A few years since, quite a large number not only left off meat, but undertook to live on nothing; and, finding themselves starving to death, returned to their former diet. But there are a few who have found themselves well able to live on a generous supply of bread, with other vegetable products, together with fruits and nuts, with advantage. My son, Prof. L. H. Anderson, of Chicago, lives exclusively on the fruits of the vegetable kingdom,—which kind of living he adopted some years ago,—and he has continued healthy and vigorous. A gentleman who has spent forty years in seafaring life, now aged nearly eighty-five, says that in all the hardships and exposures incident to sailing on seas and coasts, his health has always been firm, could endure cold better than the most hardy of his crew, and yet he has never from childhood eaten meat.

Hayward's History of Massachusetts gives account of a man, who, at the age of one-hundred and sixteen years, was able to go out into the hay-field and mow. He had never eaten meat from early childhood.

The Hindoos, with a climate decidedly unfriendly to English and American people, live almost entirely on

rice. They enjoy uniform health, and are able to perform the most enduring muscular exertions. While the flesh-eating foreigner is afraid of heat and night air, and is groaning perhaps under an inflamed liver, the Hindoo can carry him upon his shoulders over hills and through streams, under a scorching sun by day, and sleeping on the bare ground at night. The natives of Sierra Leone live in the worst climate in the world, subsisting entirely on boiled rice, with a small quantity of fruits, and are strong, healthy, and long-lived. The laborers on the coast of Africa perform great manual labor, with a muscular power which is considered wonderful, having giant strength and perfect health, and live entirely on vegetable products.

If we were to consult the instincts of our nature strictly, we should hardly be able to consider meat the most congenial diet; for there are few places more uncongenial to the untutored nasal organs than a shop of fresh meats. Besides the unpleasant sight of slain beasts to a reflecting mind,—beasts slain for our devouring,—the smell of their raw flesh is repulsive to all, except those whose natural sense is blunted by the culture and indulgence of a voracious appetite for flesh. It seems to me, also, that flesh-eating is not only unnatural to our instincts, but to our physical organization.

To consider man anatomically, he is decidedly a vegetable-eating animal. He is constructed like no flesh-eating animal, but like all vegetable-eating animals. He has not claws, like the lion, the tiger, or the cat; but his teeth are short and smooth, like those of the horse, the cow, and the fruit-eating animals; and his hand is evidently intended to pluck the fruit, not seize his fellow-animals. What animal does man most

resemble in every respect? The ape tribes: frugivorous animals. Doves and sheep, by being fed on animal food (and they may be, as has been fully proved), will come to refuse their natural food: thus has it been with man. On the contrary, even cats may be brought up to live on vegetable food, so they will not touch any sort of flesh, and be quite vigorous and sleek. Such cats will kill their natural prey just as other cats, but will refuse them as food. Man is naturally a vegetable-eating animal: how, then, could he possibly be injured by abstinence from flesh? A man, by way of experiment, was made to live entirely on animal food; after having persevered ten days, symptoms of incipient putrefaction began to manifest themselves.

Sylvester Graham, M. D., says this: "In proportion as man turns aside from the truth of his natural and perfect constitutional adaptation, and educates himself, by virtue of his constitutional adaptability, to habits, circumstances and conditions less adapted to the truth of his constitutional nature, he impairs all the powers of that nature, and abbreviates his existence."

This puts the whole matter of dietetics into a form as compact as though it had just dropped out of a nutshell, and into a light as clear as that of the sun at noon-day. First of all, learn what are the natural and perfect constitutional requirements of the human system; supply, then, these wants; and remember, from first to last, that, although we may swerve right or left of the true course, it will be at our peril.

What, then, are the natural and perfect constitutional requirements of man? This is no idle question. It becomes the duty of every one to endeavor to learn, if he has not already acquired the knowledge, what is the

food best adapted to develop and maintain the physical and mental attributes of his being. This duty man owes to himself and to society as clearly as the one which he discharges so faithfully when he gives his mind to his dog or his horse. He supplies them with just what they *need*, and seldom with more; but, for himself, he ransacks the whole of the vegetable, animal and mineral kingdoms to supply his wants both natural and acquired. Say not that whilst man takes his bread and his meat as *food*, he takes his mercury as *medicine*! No! does he not *swallow* it? And what but food is constitutionally adapted to be swallowed? What but air to be breathed? Say not that mineral matters are taken when the body is diseased, and that animal and vegetable matters are taken when it is strong. So much the worse. That which is taken by man into his vital domain through the stomach, if it *be* not food, is a matter altogether foreign—it is an obstructive or a poison, and calls forth the living energies of the body to expel it at the most accessible outlet. Better by far take your foreign substances when you are *strong* than when you are *weak*, if take them you must! Though the doctor prescribes and the chemist dispenses them, the people may proscribe them and dispense *with* them. The whole thing is false and rotten and ruinous in the extreme. Thousands of people in the United States of America are *far* before the people of other countries on matters of the greatest import—mat-
ters which are positively indispensable to the man who values alike the salvation of his body and of his soul! Say not that the nature of one man differs from that of another, or that we are not all *constituted* alike. There is a great mistake on this point. The common saying that “what is one man’s food is another’s poison” is by

no means true. *Meat* for one man is *meat* for another. The question is, simply, what food *is* meat for man? True it is that, at a given time, two individuals may easily be found, in any community, who, on partaking of some commonly recognized article of food, shall exhibit effects diametrically opposite in their nature; but unquestionably true is it that, in time, be it a short or a long period, the condition of the two individuals may be so altered, by training, that these effects will be *reversed* in the two cases upon a repetition of the experiment, proving that the facts are *not* consequent upon man's original nature, but upon his acquired habits. *Habits!* indeed. What are we all but individual nurseries for the growth and propagation of this class of things! and, whilst we find some just stuck in like the nurseryman's cuttings, we find the greater number deeply rooted in a fertile soil or grafted on a stubborn stock. Man, as regards his structural and functional characteristics, is, to all intents and purposes, constituted upon one grand model, view him in a physical or mental aspect: all differences of color, of form, or of capacity being mere accidents more or less intimately attached to, or bound up with, each individual existence. There is, consequently, one common law of adaptability of food for man and of man for his food, which is stamped in golden characters on the book of Nature so that even those who run may read. No need is there, then, for legislation as to man's physiological duties: there is no room for it to step *in*, since He who made the *man* has framed the *law*. The duty of man is to "read, mark and learn" the *law* which points out the *food*, the better to be enabled "inwardly to digest" both the one and the other.

It must here be distinctly remembered that no mere

habit of body, whether induced by slow and imperceptible degrees or by the most painful efforts, can in any wise affect the question which is to be considered, namely, the food *best* adapted to man's constitutional nature and to his physical and mental requirements. For example: take a person ever so slightly addicted to the habit of smoking, and it would be absurd to imagine that he does so on account of constitutional adaptation! Strange though it may seem, it is nevertheless true, that the very habit of taking *salt* is utterly indefensible on the ground of any known physiological principle or human requirement. Dr. Lankester says "it facilitates the absorption of water into the 'system.'" And this is given as its principal use, as though man—who is said to be three parts out of four composed of water—needs to become more watery still! Salt, tobacco and a number of other things constantly taken into the human system, "facilitate the absorption" of a whole train of liquids in the form of tea, coffee, beer and spirits, as well as *water*, until it becomes evident enough that the habit of taking these substances is nothing better than a delusion and a snare.

Mineral food is totally unfit for man, in any shape or under any name whatever. There is no necessity to dig into the bowels of the earth for the food of man, since from Nature's overflowing lap mankind may, if they will, get all their needs supplied. There are mineral constituents bound up in the organism of certain products of the vegetable kingdom far more than sufficient to supply all the mineral requirements of the human body.

Just think of Fruit, the thing which Nature paints in her richest colors, and to which she imparts the most delightful fragrance and taste. Who has ever discov-

ered the faintest flavor of salt in any fruit ever eaten by man! Can it really be imagined that Nature omitted from the most tempting food a necessary element? Impossible! What argument shall be brought forward, then, to justify the taking of salt?

It is quite necessary, however, to bear in mind that *taste* must *not* be brought into an argument as to *fitness*. If it be, are we not directly upholding *Cannibalism*? Why, if we went by the *taste*, where in the name of Reason should we draw the line? If man went by the *taste*—the reasoning *compels* the thing to be said—the most delicately formed and the most fondly cherished of all animal beings as it hangs upon its mother's breast would be safe no longer! *Taste!* Why, the higher and the purer the organized being, the more concentrated and sublimated should we expect to find the taste. For shame! it is *no* argument in favor of the *eating* of a thing that its nature is to *taste like food*. "Oh, but," says one, "these things are *sent* to be eaten." *Sent!* Why, if we were to believe some people, we should hold that *everything* is *sent*—from a newly-born babe even to the plague amongst the cattle. Ay, and when men shrink from responsibility, do they not say that mortal beings—loved ones—are *taken away* from them? These things *may* be so, but we *know* not that it is so. Nature works by laws which are immutable and eternal, and while man takes steps to breed animals they will be bred for him, just as plants are raised, and man's own species is propagated. This is how things are *sent*. And when Nature's laws are set at naught, man must lose his choicest plants, his pet animals or his own loved offspring. And this is how things are *taken away*. It is not argument then to say that a thing is *sent* for

food because it *exists* and we please to *eat* it. Again, if men eat the flesh of animals, why not eat the flesh of animals which have themselves lived on animals? "Oh, no," says every one, "they are *Carnivorous* animals—unfit for food." Do men forget that by taking upon themselves the habits of the *Carnivora*, they bring upon themselves those very qualities of flesh and blood which cause them to reject with abhorrence as food the flesh of these animals? It is well known that putridity ensues upon the death of a carnivorous animal (man included) far more rapidly than in the case of one fed directly from the produce of the soil—from out of Nature's lap. But, alas! when is this considered? When fell disease and grim death come, we hear tell of Him who *sent*, and who is pleased to "*take away*,"—and consolation comes with the impression that it is "*His will*." Nonsense!

Plutarch says: "You ask me for what reason Pythagoras abstained from eating the flesh of brutes? For my part, I am astonished to think what appetite first induced man to taste of a dead carcass; or what motive could suggest the notion of nourishing himself with the putrifying flesh of dead animals."

All are aware of the danger attending the consumption of flesh filled with impurity—of the flesh of animals which have been killed. What argument is there, then, to justify the habit? Positively, not one! It is unnatural and dangerous and degrading.

But what shall be said of the *Milk* of animals? Just this much, says Common Sense—deny it who can: *The milk of animals is adapted to the wants of the young of those animals, and of them alone*; woman's milk for infants, cow's milk for calves.

Since, however, the use of the milk of the lower ani-

mals as food for man has been shown to be unnatural in principle, and unsound and dangerous in practice, wise men will leave the milk to flow in its legitimate channel—down the throats of the calves. Touching the use of cheese and butter, all that needs to be said is, that if milk is once shown to be bad, these things which have undergone a process of manufacture must be admitted to be worse, since they are thus removed a step further from what is natural, even leaving out of consideration altogether the immense adulteration to which they are subjected at the hands of grasping and unprincipled manufacturers.

Again, what shall be said of *Eggs*? Well, what are they? Just go to the root of the matter, and the thing is soon settled. They are but chicks in embryo—birds in the bud—things going on to a state of perfection, but, possibly, poached or sucked or haddled on the road. In short, the very nature of an egg shows that it is not a thing for man to eat.

It is not intended, in this work, to dwell so particularly upon the kind of vegetable eating most conducive to health, as upon the manner and regularity of eating. There are, however, some vegetables in common use which ought promptly and forever to be rejected. Cucumbers, though considered a luxury, should never be eaten. They are cold, indigestible things. True, some stomachs can seem to digest them with apparent impunity: so, too, some stomachs have digested glass; but this does not prove that it should be used for food. The condiments with which they are usually prepared do not assist in their digestion; except by over-stimulating the stomach, which stimulating process always tends to weaken that organ. Condiments aid in digestion

in the same way that alcoholic liquor aids a laborer in performing an extra task ; which process always tends to weaken the system. There are other articles which might be mentioned as inappropriate for the human stomach ; but a little common sense and observation will generally decide what is proper and what improper.

It is suitable and needful that continual sameness in diet should be avoided. It is better that there should be considerable sameness in each individual meal ; but the kind of articles of which different meals are composed may with benefit be varied. The more simple the diet, on the whole, the better. Complicated food, especially that which is compounded with various kinds of condiments, is bad ; such as very rich puddings, cake and pastry of various sorts. Mince-pies, wedding-cake, and plum-puddings, as they are generally made, should never be introduced into the human stomach—and the prohibition need never extend beyond the human stomach, for dumb animals could not be induced to eat them. Hot bread, just from the oven, should never be eaten till it has cooled and parted with its heated gases, which are hurtful to the stomach. Bread which is perfectly cold is more healthful for debilitated digestive organs. Bread toasted is not objectionable.

Food should be simple, yet nutritious ; and so prepared—though not with stimulating ingredients—as to be palatable,—inviting to the appetite. If the food be poor, or poorly prepared, the stomach will loathe it. Here is found one cause why some have not been successful in their efforts to simplify their diet ; they have reduced their living to a poverty-stricken quality, by which their whole systems have become weakened. Food should be palatable and nutritious. It is not best

that that kind of food should be constantly used which embraces within a given quantity the greatest amount of nutrition ; but the nutritious and comparatively innutritious kinds should be used together.

Simplicity of diet, i. e., living on simple, plain food, is exceedingly important in securing good health and a sound constitution. The great cause of the difference between the present standard of health and that of puritan times consists in the difference in the manner of living. Then, the people lived naturally ; now, they live artificially. Then, their food was plain, homely and simple ; now, it is rich, delicate, and complicated. Then, the bean-porridge was the luxury ; now, the highly seasoned meats and the rich pastry. The children were brought up on plainer food than even their parents ; now, the little ones are invited to all the unnatural luxuries in which the parents indulge. Then, a plain brown crust, even without butter, was eaten with relish ; now, nothing but the richest dainties will meet the demand.

Fruits of various kinds are proper articles of diet in connection with other food. Apples, peaches, pears, plums, berries, cherries, oranges, pine-apples, &c., may properly be made articles of diet, and come under the same rules and restrictions as other articles of food. They may be treated as mere luxuries, to be eaten at any and all times ; because they require very little effort of the digestive organs to dissolve them, and extract their nutrition. It is undoubtedly better, however, that fruit should be taken as other articles of diet, at the regular time of eating, as a part of the meal. As a general rule, fruit should be taken as a part of every meal. Good, ripe food, taken in this way, is beneficial

to health, by way of variety; and, if the bowels are at all sluggish, fruits are adapted to remove that difficulty.

William Carpenter, in his book "*Man's Best Food*," says:—"Man, if he would subsist entirely on FRUIT alone, would be able to perform his labor, in the hottest or the coldest season, for eighteen hours (if need be) daily, with no fatigue, no pain, no hunger, *no thirst*; he would require *but one meal in the twenty-four hours*; he would become the lord and the master of his own appetite; his animal propensities would be subordinate to his reason; he would not only possess that which he calls health, but his whole nature would enjoy the *pleasure of living* to a degree but seldom attained or dreamed of: in a word, he would be happy! Yes, *happy!* for though he labor hard, his labor is the best friend he has: since there can be no health without labor, and no happiness worth the name without health. But again: since happiness is the chief end of man's existence, if there is a food for man calculated above all others to secure this happiness, *it must be Man's Best Food*. That FRUIT is this food, is a mere matter of *fact*: it is no more a thing to be ascertained by *reason without experiment* than are the properties of the load-stone. As to its not being *believed*, by many persons, it is a matter of but little moment: since it can make only an infinitesimal difference—if so much as this—to the world what becomes of the man who is too proud or too *knowing* to take home a plain piece of evidence when it is given to him. He who believes not, *will do so*, if he try the experiment in a proper manner."

"Surely, now, the point may be considered as a settled one, that in the *Vegetable Kingdom* is to be found *Man's Best Food*."

“Thanks to Nature—though none to the doctors for pointing out this course—Man may live entirely on food *which no one would venture to say is NOT ‘delicious.’*”

“To be plain, *Man’s Best Food, is, always, under all circumstances, the fresh, ripe, delicious Fruit of his native country.* This will apply to the millions scattered over the face of the earth—to all mankind, indeed, save an insignificant and unfortunate minority whose companions are the seals and the bears, and whose home instead of being under a fig-tree is under an iceberg. It will be wrong for a civilized people to say that Fruit cannot be had: for, let the demand for a thing be gradually brought about (and in no other mode *can* it be), and there is no more uncertainty about a supply rising up to meet it than there is about the rising of the sun when Nature calls for light.”

“Remember that the nearer you get to Nature the plainer you will hear her voice. *She* will tell you that you want *no drink!* *She* will tell you that ordinary hunger and thirst are *morbid sensations only*, and the results of *excessive alimentation!*—that nine-tenths of the pain and disease and fatigue and misery in the world may be removed and prevented by unstimulating food in moderation!—and that the *only* way to be really happy in this life is to *follow, strictly, her dictates.* And *She* will lead you in that *narrow path* which yet is so little known though so much talked of,—that path which, being the path of duty, is the path of peace,—that path which, being the true, is the only path to the possession of a full and overflowing conviction of the bounties bestowed upon man.”

We stand in need of men who value Truth more than the loaves and fishes; we want men who will teach

Nature's eternal TRUTH instead of mumbling over the miserable *creeds* of their fellows; we want men with power to take up the *whole* of that duty which they now reject in its most vital part, and to "*heal the sick*" as well as preach the gospel; we want more power over our Institutions, and less pride with great names; we want a little more thought for ourselves, and a great deal less concern about the thoughts of others in our behalf; and, since we know full well that ignorance and licentiousness and misery are staring us in the face continually, it will surely be a pleasure so to build up *our* bodies that they may be pure temples for the living spirit within, and to remember the law that, "That which makes us have no need of physic, that's physic indeed."

The Quantity of Food.—The quantity of food which it is necessary to take at each meal is not a matter of so much importance as the regularity and simplicity of diet. Some writers on diet have undertaken to prescribe certain limits to the quantity of food to be taken, by weight. This would seem to be a difficult task. To measure out to each one a quantity suited to all the different circumstances in which he may be placed, and to all persons according to their great variety of ages and constitutions, would be a laborious undertaking, indeed: and it seems to be unnecessary. Whoever will govern himself by dietetic law—eat plain food—not more than three times a day—give time for food to digest—take proper exercise—will find little difficulty in settling the question, how much he ought to eat. Whoever will live right, need not ask his cook to weigh out his quantum of food: only give her a chance, and Dame Nature will settle that matter, and relieve him of all such burden of mind. A person with morbid appetite may eat too much;

and he should limit himself: but a perfectly healthy stomach will easily decide when it is sufficiently supplied.

Many have been much injured by too rigidly limiting themselves in their quantity of food; so that their systems were not sufficiently nourished. In the effort to change their course of living from great luxury to temperance, they ran over the line, into the opposite extreme. They reduced the quantity and the quality of their food too low. By this course, they reduced their health and strength, and finally, perhaps, concluded that their former way of living was the better. The system must have nourishment, and the quantity must be varied according to circumstances; and a perfectly healthy stomach will furnish the best index to the quantity demanded.

It is a misfortune for any one, especially for one whose health has become deranged, to keep his mind continually dwelling on the questions, what he shall eat, &c.; because this continued mental anxiety tends to embarrass the free action of the digestive functions, and increase the difficulty. Still, he must give some attention to the subject in some way: he must not be reckless in regard to the laws of his existence. The better way is, let him make himself intelligent on the subject of the laws of his nature, and then he can keep himself within the limits of those laws without mental effort, as well as he can keep himself within the limits of civil law when once understood.

The rule in regard to quantity often mentioned, to "eat until satisfied," is a bad one. The rule often given, too, in regard to the frequency of eating, to "eat when hungry," is also erroneous. When the digestive organs

are in a perfectly healthy state, their instinctive demand for food, and their entire satisfaction as to quantity, would be a safe rule ; but when we know that a large portion of the appetites of this day are not healthy and natural, but morbid and destructive, mere appetite ceases to be a safe guide. If a man would have his stomach be a safe guide, he must be sure to let it have a chance to act naturally. Instinct would guide us right ; but instinct has been perverted and oppressed, till its voice cannot be distinctly uttered.

Flesh-eating is certainly not NECESSARY to health or strength, as every candid mind must see. If it be used, it must be used as a matter of fancy, and not of necessity. If the vegetable world did not furnish all the elements from which health and strength are derived, the sturdy horse and ox would find themselves sadly provided for. They need the same elementary principles in their food which are needed for man. Flesh evidently, as already intimated, composed no part of the food provided for man in his primeval state ; its use came to be suffered in consequence of perversion. And if, as argued by some, the food obtained only from the vegetable kingdom is not adequate to the sustenance of man, Nature must have made a mistake in her first arrangement for our support.

Some naturalists have classified man as in part a carnivorous animal : but this would not prove it his duty to eat flesh : because either the indications of his classification are the result of his habits of flesh-eating, or they existed for ages past, and mean nothing as relates to his mode of living. The teeth of the carnivorous animals have either conformed to their habits, or they existed previously in the present form, and consequently

have nothing to do with their eating flesh; for it cannot be supposed that animals devoured one another in their primeval state. My effort now, however, is not so much to persuade any into an entire disuse of meats, as to show the impropriety of an overproportion of them.

It is, however, unquestionably a fact that the highest standard of health, the greatest longevity, the purest morals, the best temper, the most intelligent brain work, can be attained and performed when the animal man has been nourished on the best foods most scientifically prepared. And by "best" I do not mean the richest or most costly, but simply those vegetable products containing the elements that are best adapted to supply the mental, moral and physical needs of the system.

If moral reforms are ever to be successfully inaugurated, if the world is to be made purer, sweeter and better, man's moral nature uplifted, the temperance cause receive the impetus it should, and intellect attain a high average standard, all will be accomplished in a large measure through the instrumentality of proper food.

CHAPTER IV.

EFFECTS OF DIET ON CHARACTER AND DISPOSITION.

ONE objection to eating so largely of animal food lies in the fact that it increases the proportion of our animalism. When the nutrition of vegetation comes to us through the flesh of an animal, it has undergone a sort of animalization; and, as it passes into our circulation, the proportion of the animalism in our natures is increased by it. A serious objection would seem to lie against such a result; for man is quite sufficiently animal without taking this kind of stimulation to make him more so.

The facts supporting the above statement are these: it is well known that, when hunters wish to prepare their hounds for the chase, they confine the diet of those animals to flesh; and that this course does increase the savageness of their dispositions. By its stimulating, animalizing properties, it excites the animal propensities to increased activity and ferocity. It gives no more strength than that derived from bread; but it excites the animal passions. When ancient warriors desired to give their soldiery a special fitting for the brutal battlefield, they would feed them exclusively on flesh. When the gamester at cockfighting is preparing his fowl to win the prize, he confines him to flesh. The experiment of flesh-eating has been tried upon the cow. When she was confined to flesh food, rather than starve she at length ate flesh, and finally lusted after it, and ate it as

greedily as though she had belonged to the carnivorous race. But it changed her natural disposition to that of the tiger: she became ferocious. And she verified another general rule with meat-eaters; she lost all her teeth.

It is generally admitted, also, among intelligent people, that eating much flesh tends to diminish intellectual activity; and that consequently it is not well for those who devote themselves to study to indulge largely in the use of meat. This general impression is founded on sound philosophy. When we increase the proportion of our animal nature, we oppress the intellectual. If students would make easy progress, they must not indulge themselves with eating much flesh; and the less, the better. If any would be eminent, too, in morals or religion, let them eat but little flesh; if none, still the better. For, when we increase the activity of the animal propensities, we weaken the power of the moral sentiment, and endanger the rectitude of moral action. We need to encourage and cultivate our intellectual and moral powers, rather than our carnality. We are naturally savage enough in our dispositions, and fleshly enough in our appetites, without taking a course that will increase those qualities. There can be no question but that the use of flesh tends to create a grossness of body and spirit. A reference to the history and character of different nations alone would prove this. There is certainly a grossness in the idea of one dumb animal making food of another animal; and the idea of an intelligent being devouring the flesh of another animate creature is grosser still. And will the advocate of true refinement—will the advocate of moral purity and religion—indulge in such luxuries?

Another objection to animal food is, it vitiates the fluids of the system. Practical demonstration has often substantiated this statement. Take the great mass of cases which require treatment for a humor, and it will generally be found that the individuals thus affected were, themselves or their immediate predecessors, large eaters of flesh. Even the cancer can be generally traced back, either mediately or immediately, to such an origin. And what has been found to be the most effectual remedy in cases of common humor? Abstinence from eating flesh. When we feed on flesh, we not only eat the muscular fibres, but the juices or fluids of the animal; and these fluids pass into our own circulation — become our blood — our fluids and our flesh.

However pure may be the flesh of the animals we eat, their fluids tend to engender in us a humorous state of the blood. But the meat that is given us in the markets is very far from being pure. The very process taken to fit the animals for market, tends to produce a diseased state of their fluids. The process of stall-feeding is a forced and unnatural one, by which the fluids become diseased; and then we eat those diseased fluids. Some of our meat is fatted in country pastures; but, by the time it reaches us, the process of driving to market has produced a diseased action of the fluids.

If it be argued that these objections may lie against raw meat, but not against it when cooked, it may be answered, that if meat can be cooked so severely as to remove its juices entirely, it might be comparatively harmless; but just in proportion to those juices will be its nutrition, and also its injurious qualities; besides, if the juices could be entirely removed, who would eat the

meat? and how much nourishment could be obtained from it?

Animal food exposes the system more effectually to the causes of acute disease. Where the fluids are in a diseased state, the ordinary causes of disease find a more easy prey. Thousands on thousands of those who have been afflicted with, or have died of fevers, small-pox, cholera, &c., might probably have escaped their deadly influence, if their fluids had not been vitiated by animal food.

The use of meat is undoubtedly a fruitful source of disease, and a means of enhancing those diseases which are unavoidable. The severest cases of worms in children may, as a general rule, be found among the greatest meat-eaters.

The vitiated state of the fluids is often seen in the character of wounds. In those whose fluids are pure, wounds heal readily. Smooth-cut wounds, if rightly treated, will heal by what is called "the first intention," or the first effort of Nature: while in those whose fluids are vitiated, there is a liability to extensive inflammation and ulceration. In cases of rough wounds and bruises, where the fluids are pure, Nature effects a cure with remarkable speed; but in those whose fluids are corrupted, the process of cure is generally long protracted, and sometimes exceedingly obstinate and unmanageable.

In Humboldt's description of the Indians of Peru, Mexico, Quito, and New Grenada, they are represented as peaceful cultivators of the soil, remarkably exempt from disease, and free from physical deformities. They live almost entirely on vegetable nourishment. In his narrative of himself, he gives the same decided testimony as to the character and habits of various other

South American tribes. Our American Indians, who, in their savage state, live entirely on flesh, are short lived, and greatly subject to epidemic and contagious diseases. Whole tribes are sometimes swept off by measles, small-pox, and other maladies.

The inhabitants of the Pacific islands, in their heathen state, were well built, fine featured, mild and pleasant; and their physical strength and activity was such that Captain Cook's men stood no chance with them in boxing and wrestling. Their diet was almost entirely of vegetables. The Hottentots and New Hollanders, on the other hand, are ill-formed, stunted, sickly and short-lived. Their living consists almost entirely of animal food. They live on lizards, serpents, frogs, and other reptiles, and are without intellect, or a sense of right and wrong.

The best muscle-forming food for everybody is without doubt to be found in the fruit and vegetable kingdoms. This is the kind of food out of which the horse and the gorilla make their muscle. The gorilla is said to be the strongest animal on earth. He will take the barrel of a gun and bend it across his arm with perfect ease, or tie it into a knot in an instant. He can kill a hunter with a single blow of his fist. Two or three of them will leap on the back of an elephant, and beat him to death with clubs. The gorilla lives on fruits. Sometimes he will steal into a cornfield, and carry off the corn when it is soft in the milk. He is also fond of melons.

It is interesting to watch gorillas when they are robbing an orchard. They form in a long line from the orchard out into the woods, some little distance apart, and send out sentinels to watch while others steal the fruit. The one who gets up into the tree first will pick

an apple and toss it to the next one, and he to the next one, and he to another one, just as firemen pass a pail of water from one to another. These animals live upon fruits, and I think this is the secret to their great strength. Then why should not man, the king of creation, the king of animals, live on an equally refined and elevated diet?

Eating largely of meat tends, undoubtedly, not only to engender disease, but to make a demand for stimulating drinks. As before stated, Americans are the greatest meat-eaters in the civilized world; and they drink more liquor, considering the light they have, and the means put forth for its suppression, than any other nation. The stimulus of the meats and their condiments leads to a demand for additional stimulation in the form of drinks.

The objections, then, against meat-eating are three-fold,—intellectual, moral, and physical. Its tendency is to check intellectual activity, to depreciate moral sentiment, and to derange the fluids of the body.

Animal food is also too stimulating. Simple stimulus mixed with nutrition is what we not only do not need, but its tendency is injurious. Take two laboring men—one lives on meat, the other on vegetables;—the meat-eater may at first be able to excel in the amount of labor performed in a given time, just as that man will excel who takes brandy with his meal; but, in the long run, the man who depends on nutrition that is simple and unstimulating, will endure longer and perform more. Those who choose to eat flesh should take it only at dinner, and be satisfied with only one kind at a time. Those who are inclined to obesity would be far better without any meat; but, if they use it, they should avoid

the fat meats, and content themselves with that which is lean. All condiments should be avoided with meats, as so many drugs, which have no place in the healthy stomach.

The objections against eating flesh are, however, less forcible in the case of laborers than of those of intellectual and sedentary habits. While the laborer works off a measure of the evil influence exerted on his intellectual, moral and physical systems, the sedentary man retains them.

The digestive power of the stomach may be cultivated to some extent. Gormandizers sometimes live for years free from dyspepsia, able to dispose of a large dinner daily, but there is less power left for the voluntary muscles, as they are comparatively sluggish, and less also for intellectual operations. For a period, sometimes of several years, the stomach bears this exertion, receiving an undue share of nervous influence, while the whole system, kept in a state of perpetual plethora, is exposed to apoplexy, or some form of acute disease, and is wearing out with a rapidity proportioned to the excess of stimulation and overcharging of the organs. In some cases of this sort, distant parts may suffer by sympathy, and sometimes give way before the stomach.

At the expense then of other organs, the stomach may be compelled to do extra labor, but the whole machinery is put in jeopardy of violent forms of disease, and is sooner exhausted and worn out.

The stomach becomes easily habituated to a certain amount of distention at meals, short of which it is uneasy.

A babe accustomed to be nursed at short intervals will grow uneasy and restless, after waking from sleep.

This restlessness is caused partly by the plethora of the system, and partly by the want of the customary distention of the stomach. It is, of course, temporarily quieted by giving it food.

When the uneasiness of the stomach, under a diminished quantity of food, is great, relief may be had from the use of water, to accomplish the ordinary distention. This is the most harmless article that can be employed for this purpose; and it may be continued, diminishing the quantity employed, till the stomach quietly comes to a proper degree of distention. The quantity of food usually taken is considerably greater than is necessary to support life and maintain a uniform standard of flesh, and the highest possible degree of health.

The digestion of animal food being almost entirely performed in the stomach, instead of being fairly distributed over the different portions of the digestive track, not only throws upon the much-abused stomach an excess of labor, but leaves other organs with an insufficiency of employment.

It may be argued that even supposing animal flesh is not naturally a food for man, that it is not a food for which he was originally *adapted*, yet his wonderful *adaptability* has enabled him through long ages to use such food, and that he has thus modified his nature. But, if so, at what expense? Notwithstanding all the sanitary and other improvements that have been made there is still a lamentably large number of early deaths, and a vast amount of sickness and feebleness. The causes of this condition are many and various, but not improbably one of the prime factors is an erroneous dietary. And may it not be possible that one of the most important errors, perhaps the foundation mistake,

consists in the use of an unnatural food in the form of animal flesh? Even had we to consider only the use of flesh from animals in good health, there seems sufficient reason for pressing the enquiry, but when it is remembered how great a majority of animals that are slaughtered for food are in a more or less diseased condition the question assumes intensified importance. And that seriously diseased flesh is sometimes sold and eaten no one can doubt in the face of our newspaper records.

Although the use of such diseased food must be prejudicial, it appears after all to be but an aggravation of prior mischief. For it is admitted that certain effete and injurious matters, decayed and decaying tissue cells in process of transition to the various excretory organs, are inseparable from the flesh of even the healthiest animals, the process of elimination being arrested at death. They are, therefore, consumed by the eaters of flesh food, and produce a deleterious effect.

That the continual and excessive use of animal food may affect the mental and moral faculties deleteriously is a fact which a thoughtful man will not deny, at least after a moment's reflection. There are at least three distinct reasons which render it thus injurious.

1. As already shown, flesh food is stimulating, and, like every other stimulant, it impairs the nervous powers, and so injures the moral and mental faculties.

2. Numerous instances are recorded illustrative of the wonderful and mysterious effect which the mental faculties exert over the functions and tissues of the body. A fit of anger has been known to so change the lacteal secretions of a mother as to cause convulsions in an unweaned child. Great fear, the sudden reception of sad news, a protracted mental excitement, has been

known to change a person's hair from raven black to snowy white in a single night. These illustrations show: 1. That mental emotions may induce sudden and characteristic changes in animal tissues. 2. That tissues thus effected may produce most injurious results when used as food by other animals. How these changes are brought about, we will not attempt to explain; nor is it necessary that we should do so, since we know the fact exists. Who can doubt, then, that the flesh of an animal which is killed when infuriated with rage may not transmit a certain degree of the same element to those who dine upon it? With this view, we can see much significance in the remark which Byron once made to a friend whom he saw eating a piece of rarely-cooked meat. Said the great poet, "Are you not afraid you will commit a murder?" He himself declared that he "felt himself grow savage" whenever he partook largely of animal food.

3. Flesh-eating implies, necessarily, the slaying of animals, which bloody act ought to be sufficient argument against the practice. Look at the noble oxen as they daily perform their accustomed labor in implicit obedience to the will of their master. See them kindly bending their broad necks beneath the massive yoke as they willingly do for man what he is unable to do for himself, day after day, with unwearied patience, contributing to his comfort and convenience. Look into the great honest eyes of these noble animals. Can you not see benevolence and kindness beaming forth? and do not their expressive features, taken together with their every day actions, betoken a degree, at least, of *intelligence*? Education and prejudice may lead you to recoil at the word, but is it not impossible to account

for the many every-day manifestations of reason and education on the grounds of mere instinct? Can we refuse to admit the truth?

In claiming for the animal a certain amount of intelligence or reason, we do not in any way detract from man's glory or supremacy, but we merely elevate the beast to its proper sphere. But we will not discuss this question here; in fact, there is little necessity for it, for the ground taken is now quite generally admitted, and the time will probably soon come when it will be universally recognized as fact.

Again, notice the little lamb as it gambols on the lawn, joining the children in their sportive games, and manifesting every token of affectionate regard and interest for its youthful playmates. It can see, hear, feel, taste and smell just as well as they. It is a living, sentient creature, possessed of the same means of enjoyment with which we are blessed. Now, is not the thought of staining our hands with the blood of such creatures a repulsive one? Does it not seem beastly to roughly seize them and deprive them of their happiness, their life, and then to devour them just as would a rapacious beast of prey, and all for the gratification of a perverted appetite? There can be no justification for such a course on the grounds of necessity, for the vegetable kingdom affords an almost endless variety of substances not only more palatable, but more nutritious, besides being free from impurities. Inability to procure other nourishment is the only circumstance which can justify the use of flesh food.

Viewed in this light, the practice of flesh-eating cannot do otherwise than to harden the heart, destroy the finer sensibilities, excite the lower passions, and create

a thirst for blood and a disregard for life, and all as the incidental effect of the necessity for the slaying of animals to supply the unnatural demand for animal food.

Pythagoras, the famous Grecian philosopher, and his followers, religiously abstained from the use of animal food, and considered it sacrilege to take the life of a single living creature.

The Essenes, a Jewish sect, who flourished about two thousand years ago, were equally scrupulous with reference to the slaying of animals and the eating of flesh. They were noted for their sobriety and exemplary piety.

The Brahmins of India have long held the same views, and adopted the same practice with reference to the use of animal food. And a new sect has recently sprung up among the natives of India who are strict vegetarians, and adopt the Christian religion, aiming to re-establish the apostolic faith.

But in addition to its indirect moral influence, it has a very important physiological effect in exciting the lower passions, and so leading men to the commission of crimes. In this respect it effects the system just as does alcohol or any other stimulant.

Basing their arguments upon the increased vital activity often found in flesh-eaters, many have claimed that animal food is necessary to produce intensity of mental action. Now, while it may be in a degree true that those who make free use of animal food sometimes exhibit greater violence of action than is usually seen among vegetarians, the quality of the results accomplished by such efforts must be considered; for this question is greatly modified by the fact that while animal

food may produce intensity of action, it also deadens and renders obtuse the sensibilities.

Another fact must also be borne in mind, viz., that the greatest triumphs of genius, the most brilliant achievements of the human intellect, have not been the result of violent, spasmodic effort, but of continued, persevering, patient labor, slowly but surely mastering one difficulty after another until the final glorious results were reached. Thus it is seen that true mental power is not properly measured by the amount of force which can be exhibited under the excitement of a sudden impulse, but by the ability to endure severe and protracted mental labor.

The further evidences against the dietetic use of flesh which might be drawn from physiology are both numerous and conclusive, but we forbear to dwell longer upon this part of the subject. Sufficient testimony has been adduced, however, to show in the most conclusive manner that physiology is decidedly in favor of a purely vegetable diet for man. To be sure, there are the modifying effects of long-continued habit which in a measure affect the question, but these will be considered in their proper place.

Evidences from Experience.—Having seen that the unequivocal testimony of both anatomy and physiology is decidedly in favor of a vegetable diet, and as strongly opposed to the use of animal food, let us now notice if actual experience corroborates their testimony, and inculcates the same great truth; if we find this to be the case, we must consider it well established upon a firm, substantial basis of fact.

Without number have been the elaborately wrought and very plausible theories which have vanished into

thin air, when subjected to this trying ordeal. Many times has the attempt been made to compel facts to conform to an arbitrary and unsound theory; but such an effort is preposterous, and never has resulted otherwise than disastrously. Facts are stubborn things, and must be squarely met. This is the manner in which we expect to deal with them, and here we find our great strength, for we require that our opponents shall do the same. We shall not attempt to give anything like an exhaustive treatise on this subject, but merely call attention to a few of the many facts which have a bearing upon it. But now for the facts.

The Antediluvians.—History, both profane and sacred, favors the idea that for many years after the creation man subsisted exclusively upon vegetable food, and by so doing attained to a remarkable age and wonderful physical development.

And as we see with what facility the South Sea Islanders, with the inhabitants of other tropical countries, supply all their alimentary wants from such sources as the plantain, bread tree, cocoa, date, yam, etc., all of which are found wild, growing without tillage, we can readily conceive that, in the early days of man's history, when the earth was sparsely populated and the soil yet in its virgin richness and fertility, an abundance of nutritious vegetable food could be obtained with scarcely any effort.

Nations of Antiquity.—Among the nations of antiquity, the records of whose brave and noble deeds adorn the pages of history, we find many evidences of the superior character of vegetable food as a diet for man. All are familiar with the heroic exploits of the noble Spartans, who seldom tasted meat, their food not only consisting

of the simplest kind of vegetables, but also being very moderate in quantity. And while all will readily admit their superiority in a physical point of view, their mental superiority is no less apparent. How often do we hear reference made to the famous Spartan king, Lycurgus, as being a model legislator; and when was any nation ever more happy and prosperous than were the Spartans under his wise and auspicious reign.

Then there was the renowned philosopher and teacher, Pythagoras, who from religious scruples refrained from the use, as food, of anything which had ever possessed animal life. Although he held many erroneous views, in common with the rest of mankind at that time, the depth and force of his reasoning, and the accuracy of his conclusions, together with the astonishing sharpness of his perception, which enabled him to conceive and describe the scheme of the planetary system, which only modern science has been able to satisfactorily and clearly demonstrate, have seldom been equaled by man. All of his followers, many of whom were illustrious characters, adhered strictly to the same regimen with himself.

Again, there were the Egyptians, at whose great metropolis gathered great men and master minds from all quarters of the then known world, to avail themselves of the special advantages there afforded them of acquiring a knowledge of the arts and sciences which at that time flourished there as nowhere else. Upon examination, we find that at this period of their history the Egyptians abstained almost entirely from the use of animals as food on account of their religion, being firm believers in the doctrine of metempsychosis or transmigration.

One of the strongest arguments against flesh-eating,

and therefore in favor of Vegetarianism, is that which appeals to the higher sentiments, the unselfish impulses, the better nature of man. How many are constantly chiding themselves on account of the sufferings of the non-human species, the horrors which are so intimately connected with the animal food supply. For evidence of this we need only remember the discussions which have taken place in the endeavor to secure a less cruel method of taking the lives of animals for food. It is needless to enter into this question at any length; the concomittants of the rearing, transit, and slaughter of animals are sufficiently well known. But to such as feel strongly upon this subject, the acquirement of information by which they learn of the non-necessity for such food often comes as a great relief. Instead of being compelled to crush down the thoughts that would sometimes arise respecting the food they were taking, or by the depressing influence of their thoughts, and the non-enjoyment of the food to lose the benefits which under happier conditions they would derive from it; the conscience is at ease, there is a satisfaction in knowing that not for supplying their meal has any needless cruelty been perpetrated or suffering endured, and the thoughts that arise about the food they are eating can be freely permitted. Not alone is the better digestion of food advantageous, but the mental quietude and restfulness arising from the consciousness that their practice is in harmony with the promptings of conscience, are of the highest value in promoting physical health.

When we consider the conditions of life at the present time we are forced to recognize that they are generally conditions of high pressure. Although the cause of this state of things are numerous and complex, it is evident

that the use of stimulating foods and drinks has an influence in it. The high pressure craves stimulant, the stimulant encourages the high pressure, and thus the two act and react on each other. One result or accompaniment of this is the multiplication of wants, which have grown to such an extent that retrenchment and reform are loudly called for. Where can they begin better than at the table, by the disuse of that section of food which, while being the most costly, has been shown by science and experience to be unnecessary?

In the avoidance of gross foods, an important step is taken in checking or reducing grossness of body. Undoubtedly there is much of grossness in animal flesh, and especially in some of the forms in which it is used, *e. g.*, game, the viscera of various animals, birds, &c., and many minced and prepared foods of the sausage tribe. And so extensively are the latter articles now used, that, not inaptly, this has been termed the "sausage-eating generation." Animal flesh is not only gross, but is also stimulating. In abstinence from stimulating, exciting food, a feverish condition of body is not fostered, and the passional nature becomes less difficult to control.

One feature of the flesh-eating system is the constant exposure to view of the carcasses, or portions of carcasses, of slain animals. If it be true not only that, "a thing of beauty is a joy forever," but also that the common acquaintance with sights of beauty and sounds of sweetness, has a refining influence, what must be thought of the educational tendency of the sights and sounds connected with the procurement, supply and preparation of animal food? Is there room for doubt that the tendency is the opposite of refining? On the other hand the

avoidance of these sights and sounds by the discontinuance of the system which gives them birth, must necessarily have an elevating influence.

With the disuse of animal food there will be found a change of occupation for that large class of men who are at present vicariously engaged in the work of butchering; taking the lives of animals on behalf of those whose innate tenderness recoils from a task so degrading, so brutalizing, so repulsive to all the noblest instincts and sentiments of man as the slaughter of innocent victims. And others who are engaged in the rearing, transit, &c. of animals for the food market, and in trades connected with this branch of food supply will also find other and less demoralizing employment. It needs no words from me to make it clear that the work of slaughter is brutalizing. This is manifested very distinctly in an extract from the report of an inspection of slaughter-houses, quoted in the paper on "The Abatoir System." It would be hard to find a more forcible example of callous indifference to the sufferings of animals than that which becomes evident when the full purport of this report is realized. Let me remind you of the words, which refer to one of the slaughtering places inspected: "Large place with side entrance. Very bad approach, down a slippery incline, ending in two stone steps. Two lairs; in one the animals could not see into the slaughter-house, in the other they could. Here sheep were being killed, having previously—as the butchers informed us—been kept in the lair for three days. No utensils for feeding or watering the animals. Butchers took about a dozen sheep out of the lair, and huddled them in a corner of the slaughter-house while others were being killed. Butchers were men and boys." Think of it!

Three days in confinement without any proper arrangement for food or water, so that if food were given it would presumably be thrown on the floor, and the unsanitary state of that floor imagination may serve to indicate. Then for this period of three days to witness the slaughter of their fellows, to hear their pitiful bleating and dying cries, to be in constant terror of the moment when the knife, which they could see being used to slaughter others, would be turned upon them. Such sufferings must certainly bring them into an unhealthy condition and consequent unfitness for human food. But one can scarcely conceive the possibility of human beings becoming so insensible to the sufferings of animals as is indicated by this wanton infliction of exquisite torture, truly the refinement of cruelty.

The claims for a natural diet are so many and so varied that they must appeal to all who possess thoughtful minds. Its humanity and justice to the races of animals subject to man; its value as an auxilliary to the work of temperance reform; its influence—direct and indirect—upon the character; its aid in substituting healthful and humanizing employment for that which is unwholesome and degrading; its adaptation to the physical requirements, and its harmony with the structure and functions of man; the chemical accuracy of the foods found in the vegetable kingdom; its reduction of the risks of disease, and benefit in promoting health; its economy and consequent service in enabling all to be fed with a sufficiency of nourishing food; its value to the owners and occupiers of land, and to those who might find employment thereon in exchange for present idleness; the removal from woman's work of many unpleasant and even revolting details that are inseparable

from the preparation of animal food ; the enjoyableness of the diet ; the generally elevating, refining, ennobling influence which may be expected to accompany or follow its wider adoption, and its influence in adding to the sum, not only of human health, but of human happiness and usefulness. These and other considerations justify the appeal which is made to you for a fair and full examination of the principles herein advocated.

Matters of fact have been stated, deductions philosophically drawn, and practical demonstrations presented ; and every candid reader—unbiased by a flesh-loving appetite—can easily come to the conclusion for himself, whether it be better to eat, or to dispense with flesh in his diet.

CHAPTER V.

STIMULATING DRINKS.

IF we would enjoy health, all stimulants should be avoided. When stimulants are taken, the machinery of the system is hurried and driven too fast. And although by this means its activity and power may seem to be increased, yet a reaction must follow; a corresponding debility must ensue; then another stimulating draught is called for, to bring the system up again, and then another reaction must follow. By this course of things, the real, natural vigor of the constitution becomes gradually, and oftentimes imperceptibly impaired. Hence, if we would preserve a healthy system, instead of provoking nature to unnatural action, we must furnish her with sufficient healthy nourishment, and let her regulate her own mode and speed of action. Give her nourishment, and she will furnish her own stimulus, which will be far preferable to any promptings which art can invent. Sustain her in her natural action, and not force her to unnatural speed, which must result in weakening her innate powers. To live naturally, is to live healthily; but to live artificially, is to tempt and foster disease.

Let us suppose a case for illustration: a man undertakes a long journey; his horse naturally and easily travels at the rate of five miles per hour; he can do this day after day, with proper care and feeding, and come out bright at the end of the journey. But the foolish

rider is not satisfied with this steady speed; it would be more to his gratification to travel much faster; so he goads up the poor animal to an unnatural speed—say eight miles an hour. He intends that forty miles shall be each day's travel; and by going five miles per hour, eight hours on the road would be required for its accomplishment. But, by means of whip and spur, he performs the allotted distance in five hours, provided the abused beast does not give out before the day's work is finished. Now, any one of common sense can at once judge of the ability of the animal to perform a long journey, and of his condition at the end of it, under such a system of driving. Every time his goading urges his animal faster than his natural speed, a reaction ensues, which continued process wears fast upon his natural strength.

Precisely in this way do those whose rule of living is their present gratification, treat their own animal systems. Instead of allowing Nature to take her own speed, they goad her on to unwonted action, and consequently lessen her power to perform her functions, and her ability to endure her labor. Why not let Nature alone? Why interfere and jostle her natural operations? Why spur on the noble steed to unnatural fastness, break down his constitution, and disable him for reaching the end of his journey? Besides all the wrong in the case, it is bad economy; what is gained temporarily, is lost, and much more with it, ultimately. Let Nature alone, and she will temper her speed to the laws of health and endurance; she needs no whips and spurs—she asks no help. While she is able to do her own work, all help is hindrance. The animal that is driven beyond his five miles per hour by the whipping process,

becomes so exhausted and dull, that even the five miles' speed cannot be performed without increasing the stimulus of the whip. So Nature, by continued stimulus, becomes dull and lifeless in her operations, and cannot be kept up to the mark without goading her up more and more.

Let the difference be well understood between stimulants and nutriments. The former term embraces those things which give unnatural speed of action, but furnish **no** support, produce no blood, and make no flesh. The latter term embraces those things which support vital action in its natural course, by furnishing material for digestion or respiration, to be converted into blood, and assimilated into flesh. Pure stimulants furnish no blood; they cannot be digested. They may contain some of the chemical elements found in nutritious substances, but which, in their present chemical unions, cannot be digested or assimilated, and are therefore poisonous to the system. The grains contain nutriment—contain substances which, in their present union, can be digested and converted into blood. But put these grains into the process of fermentation, and by chemical changes, a new substance is formed, of such chemical constitution that it cannot be digested.

Alcoholic liquors of all kinds, whether strong beer, cider, wine or brandy, should never be taken; because, besides the danger of a drunkard's grave, they are all stimulants; they impart no nourishment to the system, but force its action to an unnatural degree. The idea that these liquors promote digestion is all a delusion. They give to the stomach an unnatural and forced action, which, while in health, it does not need; and the longer it is subjected to this driving process, the more will it

depend on stimulants. When the stomach is excited in this way, the brain also is excited; and whoever uses alcoholic drinks as a beverage, is so far a drunkard; for no dividing-line can be drawn—no transition boundary can be made—between him who drinks moderately, and him who drinks excessively. It is all wrong, and only wrong. It is all intoxicating, and only intoxicating. He who drinks a little is a little drunk; he who drinks largely is largely drunk. To be temperate in the use of good things in their place, is to use them with proper moderation. To be temperate in the use of bad things, or things out of place, is to let them alone. Temperance in eating bread is moderation; temperance in regard to stimulants and narcotics is total abstinence.

Coffee is objectionable for a similar reason; it is a stimulant—a kind of narcotic stimulant, bearing some resemblance to opium; and so powerful is its action, that it is considered and used as a most certain antidote to poisoning from opium. And it can readily be seen, that unless it was an article of much power itself, it could never overpower such a poison. Coffee should never be drank as a luxury or beverage. Mothers should never be so tender and affectionate toward their children as to give them such an article for their drink. That mother is foolish who will value the immediate gratification of her child more than its future enjoyment of health and soundness. Her child will desire no such indulgence, if it has never been accustomed to it. If the habit has been formed, let it be at once abolished. There are few things over which my very soul has groaned so deeply, as seeing mothers so ignorantly or carelessly undermining the constitutions of those whom they love, and for whose welfare, moral and physical,

they are greatly responsible. Yet, if they are determined to gratify their tender ones at all hazards of their constitutions, they are, of course, at liberty to do so; or, if any are disposed to treat themselves in the same way, there is no civil law against it; but they break another law which must be met—a law of Nature written on every nerve of the human body.

A noted writer says: “This liquor taken warm, is an energetic stimulant; it has all the advantages of spirituous drinks, without any of their bad results; that is to say, it produces neither drunkenness nor all the accidents that accompany it.” This is true to the very letter; it produces all the injurious stimulant effects of alcoholic liquor, except taking away men’s senses, and making them stagger and fall.

It needs only to be added, that, in the estimation of the writer of this work,—after having used it for many years, and since having abstained from it for several years,—coffee, in all cases, and under all circumstances, is bad; that its stimulating qualities are decidedly injurious to the system, and ought never to be used. And, what makes it to be dreaded more than many other injurious things is, its evil working is so unseen and delusive. While it does not show itself like alcohol, yet its evil work is more certainly undermining the nervous system; and while it tempts us to believe that it strengthens and supports, because it excites, yet it slowly enervates. It affects the whole system, and especially the nervous system, by its effects on the stomach. But, besides this, it creates a morbid action of the liver, especially where there is a tendency to bilious affections. It affects the circulation of the blood, and the quality of the blood itself, so that a great coffee-

drinker can generally be known by the complexion ; it gives to the skin a dead, dull, sallow appearance.

Coffee affects not only the body to its injury, but also the mind. It has been called an "intellectual drink," because it excites the mind temporarily to unwonted activity. But, unfortunately, it is not without great prejudice to mind and body that man procures such over-excitements. After them comes prostration, sadness, and exhaustion of the moral and physical forces; the mind becomes enervated, the body languishes. To a rich imagination succeeds a penury of ideas; and, if the consumer does not stop, genius will soon give place to stupidity.

The longevity of some coffee-drinkers has been sometimes urged as a proof that coffee does no harm. But we might just as well bring forward the fact that some great whiskey-drinkers, or some great opium-eaters, have lived sometimes to old age, in proof that alcohol and opium are harmless luxuries. It is impossible to judge always of the evil effects of an article we are using by any immediate perceptible result. We must inquire what is its nature; and then draw our conclusions as to what will be its ultimate effect. The most violent poisons may be used, after a habit is established, with apparent impunity, such as tobacco, opium and arsenic; and yet no intelligent man would dare to say these are harmless luxuries. They are not harmless; they expose their consumers to premature sickness, old age and death. And they see not the breakers until they are dashed upon them.

Tea is another objectionable article, because of its stimulating properties. This is a direct, diffusible and active stimulant. Its effects are very similar to those of

alcoholic drinks, except that of drunkenness. Like alcohol, it gives, for a time, increased vivacity of spirits. Like alcohol, it increases, beyond its healthy and natural action, the whole animal and mental machinery ; after which there comes a reaction—a corresponding languor and debility. The wash-woman becomes exhausted, and must have her bowl of tea to recruit her energies, instead of giving Nature a chance to recover herself. She depends upon art rather than Nature, and each time lowers the standard of her own permanent strength. She accomplishes more in a short time, while her strength is artificial instead of natural ; but is gradually, though perhaps imperceptibly, wearing herself out before her time. The nurse keeps herself awake nights by this artificial process ; and each time, by imperceptible steps, lessens her natural strength. She thinks, with the wash-woman, that tea does her good—strengthens her, because, like the rum-drinker, she feels better under its immediately stimulating effects.

The time was when ministers, wrote and delivered their sermons under the inspiration of ardent spirits ; but now, seeing that to be morally and physically wrong, they not unfrequently labor under that artificial inspiration, which is quite as effectual, contained in tea. By this process, they gradually impair their own natural energy of body and mind ; for, when we drive up and overtax the forces of Nature by stimulus, they ultimately fall in the rear of their original process of action. The green teas are much more powerful stimulants than the black. The Chinese do not use the green teas. Not long since, meeting a Chinaman, the inquiry was made why they did not drink their green teas. Putting his hands up to his head, he said, “They burnie allie the

hairie offie." They were too stimulating to the brain and nerves.

Some have endeavored to understand from Liebig that one of the elementary principles of tea—theine—and of coffee—caffeine—which are the same in their primary elements, is important in the formation of bile. But it seems very plain that he only shows their medicinal properties to be appropriate in morbid conditions of the liver. In the same connection he shows that opium and cinchona contain elements which go into the formation of the substance of brain and nervous matter. He certainly does not mean to recommend these last-named drugs as articles of diet. Black tea will favorably affect a torpid liver; but, when used, it should be taken like other medicines, and relinquished when its object is answered. But, if taken in health, it would only tend to weaken that organ by over excitement, and ultimately produce the disease which it otherwise might be adapted to cure. So it is in regard to the use of any other drug, if used habitually. In all cases its stimulus is temporary, and followed by proportionate reaction and debility. It as truly intoxicates the nerves as alcohol; and its effects in strong doses are quite analogous.

See a party of ladies met to spend an afternoon, in a sewing-circle, it may be. Toward the close of the afternoon, their fund of conversationals become somewhat exhausted; but soon come the tea and eatables; and, notwithstanding the opposing influences of a full stomach, the drooping mind becomes greatly animated, the tongue is let loose, and the words come flowing forth like the falling drops of a great shower. What does all this mean? Whence the cause of such a change? It is the inspiration of the strong cups of tea. Then is

the time for small thoughts and many words ; or, it may be, the sending forth of firebrands of gossip and slander ; or if, perchance, religion be the topic, the inspiring power of tea will create an excited feeling very closely resembling that produced when religious rum-drinkers shed alcoholic tears.

Tea, in large doses, produces convulsive motions, and a kind of intoxication. It enters into the circulation, and affects the complexion ; it is not difficult to detect a great tea-drinker by looking at the skin, which loses its bright and lively cast, and puts on a deadly, lifeless, dried and sometimes sallow appearance. It is said that in China the great tea-drinkers are thin and weak, their complexion leaden, their teeth black, and themselves affected with diabetes. Cases have not unfrequently come under the immediate inspection of the writer, where tea had for years almost literally been the food and drink, especially of seamstresses, who would sit up late nights. In such cases, about the only remedy would be, to prohibit the further use of it. But generally this prohibition would be no longer heeded than while being uttered ; for their dependence on it, and love for it, could not be easily broken up ; and but small compensation, in some cases, would seem to be gained by its discontinuance ; for tea had almost eaten them up ; leaving little more than bone and sinew, and a few scraps of dried flesh.

In short, all stimulants are so many internal fires, which gradually burn up the machinery of organic life. Consequently, whoever uses tea or coffee as a common drink, spends his money for that which not only does him no good, but evil, and that continually. They are both innutritious, and stimulating to a degree which it

is difficult for their devotees to calculate. Now, which shall we do? Abstain, and bring under this evil appetite, or will we gratify it? Will we deny ourselves, and derive the incalculable benefit as a compensation, or recklessly go on, and take the consequences? Will young ladies and gentlemen treat their physical and mental systems lawfully, and save to themselves a good constitution, or will they, at all hazards, indulge themselves in unlawful appetites, and have no principle by which to govern themselves, but their own gratification? Will they have regard to their own benefit, and that of coming generations, or will they, like the devotee to the intoxicating bowl, live for to-day, and let to-morrow provide for itself?

Tobacco can scarcely be reckoned a drink, but it comes properly on the list of stimulants, and therefore receives some attention here. It is one of the most powerful narcotic stimulants which vegetation produces. It is classed with Foxglove, Henbane, and other poisons, under the name *Atropa*,—one of the *Fates*,—whose duty was to take life. Its first influence is felt upon the nervous system. It excites and then deadens nervous susceptibility. When first taken, it acts with great and very perceptible power; but, after the habit of its use has been long continued, the nerves lose their sensibility to it in a great measure; they become deadened and blunted to its apparent effects. Still, the poison is there, and is gradually undermining the vital forces of the system.

Besides affecting the nervous system, it carries its essence into the circulation of the blood, which can be detected in the blood drawn from the veins of those who use it. It enters not only into the fluids, but into the

solids of the body ; so that the Cannibals, when they meet with the body of a tobacco-user, detect its presence in his flesh, and throw it away. Its essence is also given off continually by the skin in the sensible and insensible perspiration. In this way it is carrying gradually its deadly influences into every portion of the body. The water in which a chewer or smoker bathes himself, when he stays in the warm water till perspiration takes place, is so strongly impregnated with its poison that it will kill flies and vermin.

Tobacco creates, at first, a feverish action ; a single cigar, as before stated, increases the pulse from fifteen to twenty strokes in a minute. Its secondary effect is to deaden the vital action of body and mind ; which influence can be easily felt, if its stimulus be suspended forty-eight hours. In this way it gradually wears out vitality, and shortens life ; so that those who indulge this ungentelemanly and contemptible habit are probably cutting off, by degrees, twenty-five per cent. of their natural existence. There is more damage done at present to the health and soundness of the men of this generation, by this waste of some thirty millions of dollars annually in these United States, than is done by the use of alcoholic liquor.

Nourishing Drinks.—As it has been said before, so let it be repeated,—which should be, at all times in health, a standing rule,—give to Nature a sufficient nutrition, and she will furnish her own stimulus, far better than anything which art can do. Support Nature and let art go a begging. Live naturally, and not artificially. The natural inquiry will now be, What shall we drink?

There are various nourishing, healthful drinks, of a

domestic character, such as bread coffee, cereal coffee, and others.

A cup half filled with hot water, and filled up with cold, makes a warm drink fit for the most fastidious appetite. Hot drinks of any kind are objectionable. They excite the pores of the skin, and expose the system to take cold by sudden changes. They excite by the force of heat, and then debilitate the stomach. They should only be taken about blood-warmth, and then not to excess.

Large quantities of any kind of drinks should be avoided. Even cold water may be taken too largely. Much depends upon habit: if we accustom ourselves to drinking much, we shall want much; if we accustom ourselves to drink but little, we shall want but little. The objection to a large quantity is this: it distends the stomach beyond its natural dimensions, and therefore weakens it; it also dilutes the gastric juice, and therefore weakens that fluid. One or two common tea-cups of any kind of drink, taken after our meals is sufficient. If we take more, it injures the digestive process. Laborers, at their meals, and between meals, are inclined to drink far too much. Their thirst, on the whole, is no less for drinking so much, and they weaken themselves by it. Besides, in hot weather, many are seriously injured, and even sometimes destroyed, by too large quantities of cold water. If they want to drink often, they should confine themselves to very small quantities at a time.

To Laboring Men.—If working men would endure long and accomplish much, they must work temperately and live rightly. Some men work too hard, and by this means violate a law of their physical nature. This is

poor economy. Though for a day a man accomplish more, yet, in the end, he is certainly a loser. But temperate labor is both healthy and curative in its effects on the animal system. If the hosts of dyspeptics and consumptives could turn farmers, they might dispense with drugs and doctors, and recover their health. But even farmers themselves may utterly destroy their health and constitutions by excessive and ill-managed labor. To subject one's self to a severity of labor which the strength and constitution cannot endure, is a violation of physical law, which, sooner or later, will bring in its train a penalty apportioned to the amount of transgression.

Another way in which labor may be made injurious, is by inattention to the laws of digestion. Take the case of the farmer for an illustration. Though the amount of daily labor performed by him is not sufficient of itself to injure him, yet by ignorance or disregard of the nature of the digestive process, he may do himself great injury. One way of injuring himself may be by rapid eating, so that his food is no more than half masticated and half mixed with saliva. That food can comparatively do him but very little good. Or, if he take sufficient time to eat, and then immediately set himself about hard labor, the process of digestion in the stomach becomes deranged and imperfect.

Hence, his system is not nourished and sustained, or else he is obliged to overload his stomach with food in order to get sufficient support. But let him take ample time for eating, and then spend one hour on light matters before engaging in severe labor, and he will soon find himself a gainer in health, and in the amount of labor ultimately performed. Take the farmer with his dozen

hands, in haying-time, it may be. They hurry down a heavy dinner, then go out immediately to mowing grass or pitching hay. While all their nervous energies are needed in the digestive process, they are forcing them away from their duty to the muscular system. The men and their work move heavily, and at the close of day they feel exhausted and overdone.

Let this same farmer with his men, change their course; they eat deliberately, they spend one hour in doing some light work, and then apply themselves closely to work until the next meal. In this way they give time to masticate, time for the stomach to act, and then they work with ease, and despatch their task with much greater energy and speed; and at the close of the day they find themselves much less exhausted. Every man who knows how to manage beasts of burden, and studies economy, takes the same course with them which is here recommended for laboring men. When men or horses live and labor in this way, they ordinarily eat less, are in better condition, do more work, and endure longer. No man of common sense will push his horse to severe draft or traveling, immediately after a full meal. Let him consider his own body worth as much as that of his horse.

Laboring men should also eat temperately. They are under no necessity for using animal food, unless they choose it as a mere matter of fancy, for they can be amply nourished on vegetable diet. It has already been shown that all the elements of nutrition are contained in the vegetable kingdom. But whatever they eat should be simple, nourishing and palatable. If they eat too much, the stomach is oppressed, and requires a longer time to perform its functions. Some are in the habit of

taking luncheons between meals. This is bad philosophy, for reasons which need not here be repeated. If they lunch habitually, of course, when luncheon time comes, they feel a faintness at the stomach. And so it would be if they were to eat ten times a day. If they habituate themselves to only three meals a day, they will suffer no more, nor even as much. Three meals a day is as much as they can lawfully dispose of; and when they take more, they are obliged to violate an important law of the animal economy. They should be careful that they do not allow their supper to come near bedtime; supper should come in season for digestion. Then, on rising in the morning, the head and body feel clear and active. Let laboring men adopt these suggestions, and they will find them much to their interest and happiness.

General Directions on Sleeping.—Sleep is as important to body and mind as food is for the general system. Without it, the health of the most robust would fail, and even life itself in time wither away. Some need more sleep than others, perhaps, under the same circumstances. But those who are destined to labor in body or in mind, need more sleep than those who are not exposed to fatigue.

Laboring men should give themselves ample time for sleep. They should retire to rest about nine or ten o'clock at night. Nine, perhaps, is the better hour, but never, in any ordinary case, should they sit up later than ten. They need, as a general rule, seven or eight hours of sleep; and sleep before midnight is generally considered worth more than sleep for the same length of time after midnight. They should rise in the morning about five o'clock.

Professional, literary, and mercantile men, should give themselves time to rest the mind. They ought never to allow themselves to be awake after ten o'clock at night. Many may suppose that, by laboring over their books, or other business, till eleven or twelve o'clock at night, they gain time and money; but this is a great mistake. When men undertake to cheat themselves, they always get a bad bargain. Dame Nature is jealous of her rights; and whoever will be so unwise as to trample them under their feet, will sooner or later be made to pay the damages. If we want health and ability to endure, we must obey law by giving sufficient time, and the right time, for sleep. If any would shorten his time of sleep, let him not put off the hour of retirement, but rise earlier than the ordinary hour in the morning.

Sleep, to be quiet and refreshing, should be on an empty stomach; that is, the first steps in the process of digestion should be accomplished before retirement. Supper should be the lightest meal of the day, and should be taken at least two hours before bed-time.

Another rule, indispensable to good health, is never to sleep on feather-beds. They are non-conductors of the electrical currents which naturally communicate between the surface of the body and the atmosphere. They obstruct the passing of gasses given off by sensible and insensible perspiration. They check that part of respiration which is naturally carried on through the skin. They retain those gaseous substances given off, and send back upon the body their hurtful agencies. The tendencies of some of these gases are liable among other evils, to generate fevers. Another objection to them is, they are the general reservoir of the various

exhalations of the different persons who have lodged on them. They retain the effluvia and humors which may have been gathered in this way. Hence, for those who love health more than soft beds, feather-beds should be rejected, and husk, straw or hair-mattresses adopted in their place for all seasons of the year.

On Bathing.—Cleanliness is a very important means of health. Some persons in low life, and some foreigners, are practically great lovers of dirt, and at the same time seem to have good health and sound constitutions: but they are none the better for their filthiness. Their good health may be the result alone of their plain living; while those in higher life, with all their cleanliness and ventilation, destroy themselves with their luxuries. But when the cholera and other violent epidemics appear, their most fearful footsteps are traced in those districts and families where filth abounds.

Every person ought to be accustomed to periodical, or, at least, occasional bathing. The pores of the skin are likely to become choked and impervious without it. The surface of the body becomes covered with a substance which prevents the action of the cutaneous vessels. Washing the surface from such an accumulation is very important both for the flavor and the health of the body; for, when the skin is thus coated, the whole system is affected by it. The natural exhalations, which are adapted to purify the blood and fluids generally, are thrown back upon the system; then some or all of the internal organs become oppressed, and cease their healthy functions.

An obstructed skin is frequently produced by a sudden cold, by which the internal system becomes oppressed, and a fever ensues, unless the obstruction be speedily

removed. A bath to meet such an emergency is necessary. A warm bath should be chosen when the action of the system is feeble, possessing little power of reaction; but where the system is more vigorous, promising to react so as to bring up a glow of warmth and a gentle perspiration, a cold bath may be preferable.

A cold or warm bath should be selected in accordance with circumstances relating to the state of the general constitution, present strength, or the nature of an existing morbid affection. As before remarked, as a general rule a warm bath may be the better one when the general strength is too feeble to admit of a reaction of the system under the influence of cold water; while a cold one may be better, where a tolerably vigorous habit exists. A cold bath may also be preferable, as a general thing, when resorted to as a luxury, or for the purpose of preserving health. The cold itself is a tonic to the skin, and through the skin to the entire system; while the general tendency of warm water upon the surface is weakening. When a limb is inflamed, we often bathe it in warm water to reduce its action; i. e., to weaken the present excited action of its vessels.

The frequency of bathing is a matter of some interest. This depends much upon the constitution, health, habits and employments of each individual. Those who live on meats and oily substances have much more occasion for frequent baths than those of different habits. If persons would so regulate their habits of living as to keep the fluids of their systems pure, they would have much less occasion for frequent bathing. Hence, no specific rule can be given for its use, either as a preservative, restorative or a luxury; common sense and circumstances must determine its frequency.

Mental Affections.—The sympathy existing between the mind and the body is so great, that when one is affected, both are affected. If a person imagine even that he is sick, he is pretty sure to be sick. If, while in health, he be told, and made to believe, that his countenance indicates illness, in a short time his whole system will become affected. Medicines have sometimes been known to produce their specific effect by a mere dread of taking them. Let the imagination be inspired with confidence that a certain medicine, or course of treatment, is going to perform a cure, and the cure is likely to follow. It is on this principle, that simple bread pills have sometimes performed great cures; and on this principle, doubtless, depends, to a very considerable extent, the success of any practitioner.

The state of mind has much to do with the healthy action of the physical system. A cheerful and happy mind gives a free and easy circulation in the nervous system; it aids in the circulation of animal electricity or nervous fluid, which gives support to the vital energies of the whole body. Cheerfulness, by its effect on the nervous system, contributes much toward a healthy and free circulation of the blood. It has to do, indeed, with the formation of the blood, by virtue of its influence on the process of digestion. A cheerful mind, especially during the hour set apart particularly for the first effort of the stomach after a meal, is very important to an easy, thorough digestive process. If the mind be attacked with grief, the food is not digested as well; and consequently the system is not as well nourished. How commonly does leanness of body follow continued grief! Why is this? Because grief hinders the process of nutrition. It does it in two ways: it hinders

the thorough digestion of the food, so that nourishment cannot as well be drawn from it, and it retards the action of the absorbent vessels, which take up the nutritive part of the food, and convey it into the blood.

Whatever, then, may be an individual's condition or circumstances in life, it will be great economy for him to make himself cheerful and happy. However bitter may be the cause of his grief, let him cultivate a spirit of resignation; however painful may be his condition in life, let him endeavor to be content with such things as he has; however dark his prospects, let him hope for good. While nothing is gained by despondency, much is lost and cheerfulness helps us to be healthy and happy and is of great benefit.

Melancholy has an opposite effect on the general health to that of cheerfulness. Melancholy deadens the circulation in the blood-vessels and nerves; and also retards the action of the liver. It hinders the process of digestion and nutrition, and tends to dry up the fluids of the whole system.

A state of despondency and melancholy is a frequent accompaniment of deranged digestive organs. It sometimes is found to be both cause and effect. It often causes dyspepsia, and whether it causes it or not, it generally follows it; and then operates both as cause and effect. When melancholy or a despairing state of mind once exists, whether as connected with deranged digestive organs, or any other state of ill health, the cure becomes very much more difficult and doubtful; and nothing comparatively can be effected by way of medication, for the benefit of the patient, till something be done for the mental affection. Some method must be had at once to attract the attention of the patient away

from himself and his complaints. Hence, in selecting a method of cure, some exercise or employment must be chosen, which will interest and engage the thoughts, and prevent their being absorbed in himself; and those associated with him must put on the most cheerful aspect.

Human sympathy is a quality of our natures which the Creator has implanted in us; and whoever cultivates and exercises it, yields to a law of his social character—obeys a law of his nature; and whoever cherishes a due spirit of obedience to any law of his being, is doing that which is promotive of his health. In willing good to others,—which necessarily involves all practicable benefactions,—there is a pleasurable feeling passes over the mind, which vibrates over the whole body; and this heaven-born vibration of human sympathy and good will gives a glow of health to the whole mental and animal system. Hence, the fact that in times of the prevalence of pestilential diseases, those who devote themselves to the self-sacrificing effort of nursing and watching the sick and dying, while the victims of the malady are fast falling on their right and left, seldom become a prey to that malignant disease themselves. The great philanthropist, Jolin Howard, could never have endured so long his labors amidst the varied death-damps of prisons and dungeons, and appalling scenes of wretchedness to which he exposed himself, had not the desire and the pleasure of doing good for the sake of humanity given to his system unwonted power of resistance to disease and endurance of toil.

He who wills good to his fellow-beings, and, so far as able, gives practicable demonstration of his benevolence, is not only relieving the ills of human life in others, but is at the same time contributing largely to his own health

of soul and body. Let those who have never made the experiment, begin at once to yield obedience to this law of their social being and they will find that in so doing they will receive their reward.

Malevolence is contrary to every law of our social being. Willing evil to our fellow-beings is contrary to the moral law, to the law of human brotherhood, and the law of our mental constitution. Whoever indulges this spirit has sunk out of himself as he was constituted by the hand of his Maker, and become a fit subject for the companionship of demons; where no other feelings than malice and revenge, crimination and recrimination ever find a dwelling-place.

Whoever indulges this cold, misanthropic temper of mind, chokes the natural current of his soul; and while that soul is thus constrained, and its social sympathies are becoming dried and withered, the whole physical organization feels its unnatural action, and becomes partaker of its uncommon depravity. This is to be seen in the very countenance. While the face of the benevolent man shines with the lustre of moral and physical health, that of the misanthropist is dejected, downcast and sullen. Why this difference in the physical conformation of the countenance? Because the mind acts upon the whole animal economy, and impresses its own image upon the outward man. One who is versed at all in reading human character, can easily distinguish a benevolent man from one of a malevolent spirit by the expression of his face.

CHAPTER VI.

OBLIGATIONS TO NATURAL LAW.

HE who would enjoy perfect health is obliged to obey organic law ; and from this absolute obligation he cannot free himself ; for if he transgresses physical law, he must endure the infliction of a physical penalty. While the violator of human law may escape the punishment due to his crimes, by keeping them out of sight, or by fleeing from the reach of justice, he who is guilty of transgressing the laws of his own animal economy, cannot escape with impunity—his sin is sure to find him out. Though he may pass on for a while without arrest, yet, sooner or later, he will find himself overtaken, tried before Nature's court, and condemned.

If we stand in the range of the cyclone as it sweeps along its course, can we resist its power? When the engine has accumulated a fierce velocity, can we cast ourselves before it with impunity? Can we stand beneath the weight of the spile-driver as it is loosed from its fastenings, and escape the fatal power of the law of gravitation? Can we cast ourselves from the towering precipice, and not be dashed in pieces? Yes, we may do all this, when Nature has so changed that we can violate a single law of our physical being and not suffer damage. Yes, we may, when Nature shall repeal the laws which she has set to physical life ; or when mate-

rial things shall cease to be governed by Nature, and be let loose upon the mere contingencies of chance.

The man who, by gradual steps, deviates from the pathway of physical law, may seem to pass on uninjured for a length of time, yet, by and by, he will be sure to feel the rod of punishment. He who disregards dietetic law may not at first discover any injury, or, should he experience suffering, he may not discover the relation of the cause and the effect, yet the consequences of his unlawful course will, sooner or later, follow, and he cannot escape. The man who habitually steepes himself in alcoholic liquor, or the deadly essence of tobacco, may possibly live to threescore years and ten, and appear to be in good health yet he has made himself liable to fall suddenly dead, in consequence of the unseen fires that have for years been consuming his internal organs. The man who disobeys law in any other way may not now see that his system is injured; yet when some outward cause of disease shall approach him, he is overcome by it, simply because his previous habits have weakened the power of resistance in his constitution.

The standard of general health is probably lower in the United States than in any other civilized portion of the world. The average age is probably less than half what it ought to be. And the standard of health and longevity is constantly degenerating. The physical habits of Americans are more in conflict with natural law than those of any other civilized nation. The greater part of those who are uncivilized—savage and heathen—are living in less rebellion against their own physical being than are Americans. Very few die a natural death. The vast majority die of gradual suicide. If the tombstones of our grave-yards could bear witness, what would

be their testimony? Upon a tombstone in New Jersey there is written under the name of a young lady—"Died of thin shoes;" a declaration which might be truthfully written upon many others. Could they generally speak out as plainly, we should find here, "Took physic and died," "Laced herself to death," "A victim of the cigarette," "Died of stimulants," "Died of narcotics,"—and there, "Died of an abused stomach," "Dug his grave with his teeth,"—and almost everywhere, "Died of gradual suicide."

The author of our being has given to the human constitution a natural period of existence. But when we commit violence on our own vitality, we shorten its duration. We bring on premature old age, or create by gradual steps, fatal disease. To die of disease is not, as a general rule, the way to die. We should die of age, and not of sickness. We should die as the much-venerated John Quincy Adams died—at his post, in the service of humanity,—not of disease, but of age—not because the vital powers had been violated, but because vitality had worn itself out. The men of this generation die by the violence of their own hands. Their lamp of life goes out, not because the oil is exhausted, but because it has become so adulterated with the admixture of foreign and incongruous elements, that it can no longer burn.

If the term of threescore years and ten ought to be considered the proper average of healthy human life, we have greatly fallen from that standard. At all events our average of American life is evidently not one-half what it ought to be. It is said—though we have no very definite data on this point—to be a fraction less than twenty-seven years. And it is evidently growing shorter. The dietetic habits of Americans, in some

respects, are growing worse and worse. Notwithstanding all temperance light and labors, there is at present an increase of liquor-drinking throughout the land; and tobacco-using is a vice which is becoming more and more deep-rooted and devastating, especially among the young men, and even the boys, of this generation. And unless there shall come a revolution in our American habits, which are forming the basis of physical and moral character, our race will soon come to a physical and moral ruin.

What right have we to abuse, or even to neglect ourselves? To do that which will injure our constitution or health is sinful.

Whoever, therefore, violates the laws of life and health sins against Nature. Every man is under obligation to obey those laws; and whoever dare violate them will find "the way of transgressors is hard."

With the great majority, appetite is the only law which governs; and in spite of all that can be said, it will probably, in a great degree, continue to be so; and those who choose to have it so must bear the consequences. But some may possibly be induced to examine their obligations and responsibilities in the case. Where is the consistency of being governed by principle instead of appetite, in regard to the demands of the moral law, and yet let appetite rule instead of principle in regard to physical law? As before stated, when we violate physical law, we do truly violate moral obligation. Whoever will let appetite govern in one thing is in a fair way to let it govern in all things. Whoever, through appetite, will allow himself to eat too much or too often, is very likely to give license to all other appe-

tites and passions in proportion to his strength and activity.

When men will let moral principle govern their eating and drinking, they will greatly advance their physical and moral welfare. Every effort made for the physical salvation of communities should be based on moral principle. If the advocates of temperance had always stood on this platform, they would have accomplished vastly more than they have. They have made the cause too much a matter of individual and public expediency. Instead of laboring sufficiently to show that every drop of liquor, taken as a luxury, is so much direct and tangible sin, their efforts have been to show, more particularly, that, inasmuch as by the general and extensive use made of it, vast damage was done, we were bound, as a matter of expediency, or of moral obligation based upon general expediency, to entirely abandon its use; that although the evils growing out of its use were very great, and, therefore, for the sake of example, we were bound to abandon it, yet it was not so much an evil *per se*; that if there were no danger of an increased appetite, or of injury by example, a little might not be wrong.

When the advocates of reform will plant their feet firmly upon the principle, that drinking a drop of that burning poison is a violation of physical law and therefore a violation of moral obligation—laying the axe first at the root of the tree—they will stand with moral power sufficient to move the world. They will then have the lever of Archimedes, with its fulcrum, and the place to stand which he desired, by which to lift the earth from its base. When men will stand on this foundation, in advocating temperance, they will be likely

to maintain consistency in their own habits. They will not bring upon themselves the too just charge of hypocrisy in pleading temperance over a plug of tobacco; of drawing their eloquence from the sensual inspiration of the smoking weed; of pleading abstinence from the weaker bane, and indulging lusts for the stronger poison. No man can preach the Gospel or plead its moral reforms with eloquence, while sinning against Nature with this idol in his mouth. If he would utter his words with moral force, they must proceed from a PURE BREATH, AND FROM CLEAN LIPS.

Personal Obligations.—When conversing with men on the consequences of want of intelligence and practical interest in the laws of physical life, and the importance of waking up to our responsibility in the matter, they will often apologize for their neglect and disregard for the subject during the past, and their indifference and apathy toward any future improvement, by a wholesale, unmeaning condemnation of the conduct of the world on this subject. They say, "We"—meaning all the world—"we know a great deal better than we do—if we were more enlightened, we would not regard it." This subterfuge, miserable as it is, sums up their excuse for a further neglect of the subject. Because the mass of the people are destroying the true basis of their highest earthly interests, they feel justified in letting themselves and children suffer on, under the penalties of ignorance and neglect of organic law.

If the majority of men were steeping themselves in alcoholic liquors, would this afford a valid reason why my feet should tread the same beaten path? The main question is not, what will the world do in this matter? but, what is our duty and our interest, as single indi-

viduals—what will we ourselves do in this case? Will we act in accordance with our highest temporal good, and receive the reward, which is as sure as the promise of salvation to the righteous, or will we recklessly pass on and be punished? These are questions for every man, woman and child to settle according to the law of self-love, and self-protection, written upon the tablet of every human soul. If we are suffering the ills of violated law, we suffer for ourselves,—a suffering world cannot relieve a single pain; and if we die, we die for ourselves, and the death of others cannot save us. Will we also, as individuals, attend on the duty of taking care of those committed to our charge? Or will we say, because the rest of the world take no interest in the welfare of their children, we will also let our own go on in the way of suffering and ruin?

Obedience to the laws of health should be made a matter of individual and personal duty. It is every individual's duty to study the laws of his being and to conform to them. Ignorance or inattention on this subject is sin; and the injurious consequences of such a course make it a case of gradual suicide. This idea that we may do what we please with ourselves, is not only bad policy, and bad economy, but to do so is positively wrong. And when persons knowingly or wantonly expose themselves to disease and death, by violating the laws of life and health, instead of calling the result a visitation of Providence, it should be called an act of suicide.

If a man chew or smoke tobacco till the electric forces of his nervous system are undermined, or the vital properties of his blood are corrupted, or the secreting energies of his liver and kidneys are destroyed,

and he consequently be laid upon a premature dying couch, would his sickness and death be properly considered visitations of Providence? It is no more a matter of Providence than is the State-prison for highway robbery, or the hangman's rope for murder.

If a man has gormandized on meats for a series of years, till his blood and flesh are filled with cancerous or scrofulous humor, shall this infliction of penalty be called a Providence? As well might we call delirium tremens a dispensation of Heaven for the sanctification of the soul. If men will sin against themselves, they must meet the punishment made due by the laws of their own organization. If they will rebel against Nature, they must abide the righteous decisions of Nature's court; and from these decisions there is no appeal. Nothing can save a man from burning his flesh when it comes in contact with living fire. If he would trust in Providence to save him from suffering, he must himself keep within the limits of divine law written on the human constitution.

If the path of duty pass through a region of danger, we may trust in Providence; but when we recklessly throw ourselves under the car of Juggernaut, we must be crushed. A gentleman was suffering severely from ill health. He had consulted the most skillful of American physicians, some of whom told him his sufferings were occasioned by tobacco, and he became himself satisfied that this opinion was correct; but, unwilling to relinquish this enslaving habit, he went to Paris, France, to take the advice of some noted physicians there, to see if he could not institute some method of recovery which would allow him to continue this habit. O, what folly! Why did he not get up a petition,—for a long

list of signers could have been obtained,—and send it to the court of Heaven, praying that law, touching this indulgence, might be repealed? Such a step was the only one which could possibly have afforded the slightest hope; for, while law remains as it is, the transgressor must suffer.

The laboring man who eats quick and works immediately after, is not only pursuing a course of bad economy, but is doing wrong to himself and to others. He is diminishing his power and durability for doing good. When a man of intellectual habits neglects to live in accordance with the laws of mind and body, he pursues not only a bad policy, but secures for himself the punishment due to his criminal conduct. The man who lives unnaturally instead of naturally, who allows his system to come under the influence of stimulating drinks, or narcotic and poisonous drugs, does a material and important wrong to himself, and must expect to give account for his criminal conduct on the day of final judgment.

The strange abandonment of principle which characterizes this generation in their treatment of themselves, is almost enough to dishearten the most sanguine hopes of reform. Instead of seeking after a true knowledge of themselves,—the laws which sustain and govern their own animal existence,—and what course of living they ought to adopt to secure for themselves a sound state of health and long life, they foolishly and wickedly inquire, “What shall I eat, and wherewithal shall I enjoy the present hour?”

If we tell the devotee to the alcoholic draught, or the poisonous and filthy narcotic tobacco, that his daily potations, or the essences of the deadly weed, are

secretly gnawing the tender cords that bind his soul and body together, he heeds us not. He will probably acknowledge the facts in the case, and, at the same time, with most perfect indifference to consequences, and insensibility to personal obligations, will answer, that he chooses rather to enjoy life while he does live, than to prolong life by curtailing present gratification.

But what is duty—what is right—in the case? Have we a right to prefer present gratification to permanent good? Have we any right to open an artery, and let the blood gradually run away, because we are delighted with the crimson stream? We have just as much right to do this as we have to use rum, tobacco, tea, coffee, or any other hurtful agent, for mere gratification, against the highest earthly interests of our own life. If we would reach a high attainment in morals or in piety, we must live for it. So, too, if we would have firm and enduring health, we must live for it.

Social Obligations.—In addition to our own personal obligations to physical law, we are under high accountability in consequence of our relations to society. We are under obligations to law for the sake of posterity. Parents, and those who may expect to be parents, are called upon to take care of their health and constitution for the sake of generations to come. If parents are of weakly or diseased constitution, the children must suffer, to more or less extent, the consequences. By the unlawful course of parents in regard to themselves, the children suffer disease and premature death.

Parents are also under obligation to teach and oblige their children to conform to physical law for their own sakes. The mother who suffers her children to eat irregularly, or violate the laws of their systems in any

other way, commits a crime against her offspring and against humanity. She commits a crime against the dearest objects of her affections, the evil consequences of which time may never be able wholly to remove, and knowledge ever reveal to her understanding. How strange and unaccountable that mothers should love their children so tenderly as to indulge them in what they have occasion to know may injure their constitutions and impair their happiness for life! May many children be delivered from such mothers, and from such cruel kindnesses!

The managers and teachers of schools and literary institutions are under obligations to secure such facilities for exercise and regulations in regard to the observance of dietetic law, as are adapted to preserve the health, promote the literary progress, and secure to the world the usefulness of their pupils. And students owe it to the world that they so walk in obedience to law, as to render their existence and advantages a blessing to society.

Professional men cannot disregard the laws of their own health, without infringing upon their obligations to the community whom they serve. If their services are required, they are bound to make the most of their ability to meet the demand. The labors of any professional man, engaged in the active business of his calling, whether he be a clergyman, a physician, or a lawyer, make a severe draft upon the nervous system, which will require all the strength that it can possibly command.

Working-men have a responsibility in this matter. Those who employ laborers are in duty bound, not only for their own interests, but for the interests of

those who serve them, so to regulate the hours of each day's labor, as to give their men a chance to live, enjoy the blessings of life, and sustain those who may fall into their charge. Those who are employed to labor, are under obligation to live in such a manner as to make themselves of service to their employers, and meet the demands of society at large.

All who desire the welfare and improvement of society, are under obligation to exert an influence over others on this subject, by example and precept. No man can live entirely isolated from his fellow-beings: his influence by word or deed is constantly telling pro or con the well-being of the world. Let him see to it that it be such, touching this matter, as shall make mankind the better and the happier for his having lived in it. Let him be at least a drop in the bucket of that great wheel which moves the vast machinery of human improvement in its onward course.

Healthy Reproduction of Human Life.—The attention of the public has of late been called to this subject, and a considerable amount of information, in the form of books and lectures, has been disseminated. And certainly that must be a very fastidious taste and a narrow mind which would object to giving to the people, in a judicious style, such a practical knowledge of themselves as is essential to the healthy reproduction of the species. Who should not know enough of the natural origin of human life to perceive his own obligations respecting it, and to be able to see in what way he is liable to be a curse, or in what way a blessing, to his own immediate posterity, and to generations to come?

All information, however, given on this subject for mere mercenary purposes, or to pamper an idle and

vicious curiosity, should be most sternly repudiated. Nor is it best, even for laudable intentions, to go further into detail on these delicate matters, than is really necessary for the practical purposes of life. But so far as these do require information to be given, all whimpering delicacy and superfluous niceness should be looked out of countenance by the firm and steadfast eye of common sense. Let every individual so investigate and know himself, as to be able in this matter to discharge his responsibilities to humanity in the proper manner.

Paternal Principle.—This consists in the germinating element, which contains probably the entire infinitesimal rudiment of the future being. This germ, when examined by the aid of the microscope, is found to contain animalcula. Their form bears a striking resemblance to the human brain and spinal column. Those which proceed from a robust constitution manifest great vital energy; while those from a constitution of an opposite kind exhibit an opposite character. In conjunction with its appropriate and tributary maternal element, this germ ultimately becomes developed into perfectly organized vitality.

This germinating principle has its origin unquestionably in the brain and nervous system, particularly that portion of the brain called cerebellum. To this part belongs the organ of amativeness, on the existence of which the propagation of the species depends. On the healthy development and action of this organ, under the balancing and regulating power of intellect and moral sentiment, together with the vital qualities of a sound physical system, depend, in a very large degree, the physical and mental force which shall belong to the future offspring.

Let it be remembered, the vital energy of the animalcula depends on the healthy nervous forces of the paternal system. Numerous experiments of learned physiologists show this statement to be correct. The legitimate conclusion, therefore, must inevitably be, that the innate constitution of the offspring must bear an immediate and necessary relation to the vital power of that system from which the germ proceeds.

In proof that the brain and nerves have a direct and positive agency in this matter, it is a well-attested fact, that in all cases of excess of amative indulgence,—a condition most injurious to the parent and the offspring,—there is found a peculiar and enervating sensation in the head, especially in the region of the cerebellum, accompanied with a degree of general nervous prostration. In some instances there will be a periodical or protracted headache, which can only be removed when the cause ceases to be, and the immediate effects have passed away. That the quality of the paternal system, especially the brain and nerves, determines the character of the offspring, is, therefore, a tangible matter of fact.

Paternal Responsibility.—In view of these facts just adduced, the responsibilities which fall on those who are now liable, or may at some future period become liable, to be fathers, are incalculable. The man who practically disregards his obligations touching this matter, is not fit for the society of intelligent beings. While he lives as he lists, following out his depraved and self-created appetites, regardless of his obligations to himself, his generation and Nature's laws, he is only fit to herd among swine and grovel in the mire of his own sensuality. We see that the rudiment of the future being is of paternal origin, and that the

quality of constitution possessed by the parent determines, in a great degree, the character of that future being. Hence the conclusion is legitimate, that inattention to such responsibilities is in a high degree reprehensible, and even criminal.

Any departure from strict obedience to Nature's laws tends to weaken the system. And any process which, in any degree, produces this result, proportionably disables an individual for meeting his obligations to his race. The man who uses alcoholic liquor, is steeping his brain and nerves in that poison. He is taking one of the most deadly enemies to human life into the very citadel of his being. His brain, from whence the germ of a future being proceeds, is steaming and fuming by the alcoholic fires which he has there kindled. Can this man suppose that he can take his daily, or even occasional dram, and his children escape the consequences? Ay, they cannot escape. As a general rule,—which may have exceptions,—there will be found physical or moral defects, and perhaps both, in their character.

A case in proof is at hand: a father of nine children became by degrees a confirmed drunkard. When first married, and until after the fourth child was born, he remained temperate; but, being unfortunate in business, he suddenly became, and continued, addicted to his cups, during which time five other children were born. One of these was convicted of murder; another of theft, and served an apprenticeship in the State-prison; another of forgery; another became a drunkard; the fifth was an idiot. The mother of all these was an excellent woman, and her first four children were intelligent and upright. These facts are not alone; there are

many cases of a similar character which testify to the same general truth.

That man who uses tobacco or liquor, is the individual to be addressed on this subject. He is doing that to himself which should be called gradual suicide; and that for his future offspring which should be denominated manslaughter. It is to him that truth would direct her finger, saying, "Thou art the man!" His brain and nerves are tintured with that foul and loathsome thing. Its first deadly blow is felt in the nervous system. Its essences are carried into, and are corrupting the blood, and flesh, and all the solid substance of the body. He is daily taking into his system an amount of the real essence of that wretched poison sufficient to destroy at once the lives of two or three men whose native sensibilities had never been deadened by its narcotic power. His nervous susceptibilities to its immediate effects are blunted; but the genuine poison, which, under other circumstances, would kill him, and many others with him, is, nevertheless, lodged daily in his system, and must sooner or later cause him and his posterity to pay the penalty of violated law.

And where, principally, has this poison lodged itself? On the brain and nerves. It is through this medium making gradual inroads upon his own physical and mental systems, and those of his immediate posterity. His brain, which is to give origin to other beings, is saturated with the poison. A poison, too, which affects not only his brain and nerves, but every gland, every membrane, and every tissue of his body. His children cannot escape being sharers in its hurtful agency. In view of this undeniable fact, will our young men, for fashion's sake, or for a depraved, unnatural appetite's

sake, continue this wicked gratification? Will they, in spite of consequences, and in defiance of solemn obligation, go on in this downward course? Do they lack for moral courage to face and defend themselves against that created, depraved, and infernal appetite? Are they beyond the reach of recovery—drawn down the current of an enslaving and overpowering propensity? Do they give it up?—or has poison so deadened their moral sensibilities—which it is capable of doing—that they can look upon this whole subject with a dogged indifference?

People are apt to think that because a certain habit—which they perhaps in theory admit to be bad—does not immediately destroy life, or make them invalids, they are getting no harm, and are under no obligation to change their course. They judge of their obligations to physical law, as they do of their obligations to moral law; that because judgment against an evil-doer is not executed speedily, they may sin on with impunity. But punishment for violated physical law will sooner or later come; and if they who offend could bear the rod alone, their crime against Nature's government would seem to be of less consequence. But when we know that their innocent offspring must bear a share in the punishment due to their parents, their offence seems to swell to a tenfold magnitude.

Tobacco is one of the most deadly narcotics found upon the list of poisons. A very few drops of its condensed properties will destroy life. Indeed, a single drop of its nicotine oil will kill the stoniest dog. So powerful are its poisonous qualities, that a small quantity laid upon the skin may prove fatal by mere absorption. If any doubt can be indulged in regard to its

power, let any one who has never used it, chew a small piece, and the genuine effect of the article will soon manifest itself. And though the habitual use of it stupefies the nervous susceptibilities, yet the real power of the article is daily absorbed into the system, and is doing by degrees, and perhaps by imperceptible progress, its deadly work. And now returns the momentous question, in view of all the consequences, shall this demon-idol be longer worshiped, or trodden under foot?

All forms of licentiousness are destructive ; not only to those who indulge it, but to those who may have the sad misfortune to inherit its poisonous fruits. This vice prostrates the whole nervous system, and is destructive to the right quality of that principle which becomes the origin of life. If those who have ruined their constitutions by habits of this kind should ever become fathers, their children will probably give them sufficient proof that such a paternal relationship is never to be coveted. Another vile and vicious habit, no less ruinous to posterity, is self-indulgence. This secret sin is all but ruining the whole race. It often begins very early in life, and continues till its work of destruction has so enfeebled the reproductive power, as to render marriage inexpedient, and even improper.

Any course of conduct, or habit of living, which tends to lower the standard of nervous strength, or to vitiate the fluids of the system, is deleterious to the constitution of the offspring. Large eaters of meats will transmit a portion of the morbid influences which their habit of living has given to their own bodies, and these influences may pass on into the third and fourth generation. Every one, therefore, who ever expects to become a parent, should obey his own physical laws in all things,

not merely for himself, but for the sake of his immediate posterity.

Mental health, also, is essential to healthy reproduction. Great mental exertion and application—that which tends, temporarily, to diminish the animal force of amative feeling—is injurious for the time being to the reproductive power. This may account for the fact—in part at least—that great men seldom leave sons who are able to fill the places of their fathers. The talent of the child may not so much depend upon the degree of talent possessed by the parent, as upon the immediate equilibrium of his physical, mental, and moral forces. A healthy physical system, with well-balanced brain and nerves, and a well-cultivated moral and intellectual character, make up, then, the great leading qualifications to meet our responsibilities touching this subject.

There is another idea connected with this subject which may be important. There should be, in all cases, particularly in men of studious habits, a sufficiency of mental exhilaration, as well as bodily exercise, to maintain an equilibrium of nervous circulation. The clerical profession are in special need of care touching this matter. Their calling involves the general idea, especially in the mind of a scrutinizing community, of great and uniform sedateness of deportment. Hence, partly from the nature of their calling, and partly from the expectations of the people, they are accustomed to suppress that natural buoyancy of spirit, and that letting off of the electricity of mirthfulness, which are common to all persons, and which, for health's sake, should, in some proper way, find opportunity to vent itself.

This suppression of Nature's promptings must cause a kind of continual or occasional desire for mirth, which is kept pent up in the cloisters of the soul. It is the same feeling in kind which the boy felt, and could not suppress, when, by spontaneous impulse, he whistled aloud during the hours of school. Being asked, "Did you whistle, John?" he promptly answered in the negative. "George, did not John whistle?" "Yes, sir." "John, how is that—did you not whistle?" "No sir—it whistled itself." This same kind of would-if-it-could feeling must inevitably exist within those who are comparatively deprived of the privilege of sufficient mental recreation. This may very philosophically account for that proverbial saying, which certainly has some foundation in fact, that the sons of clergymen are the greatest rogues. They have this same would-if-it-could disposition inborn in their mental constitutions, derived from the father. This feeling, finding no proper vent in him, was transmitted to the child. This, with the too rigid discipline often applied, may correctly account for this peculiarity in this class of persons.

Maternal Principle.—This consists in what is called the ovum, or egg, which bears a close resemblance in character to that of the oviparous or egg-bearing animals. This is the natural element for the reception of the primary principle or germ which is of paternal origin. The regular monthly period prepares the ovum, as well as the rest of the uterine system, for impregnation; and as a general rule,—a rule with but few exceptions, if any,—it will not receive that impression after about eight days from the finishing of that period. When about eight days have expired since the closing of this

lunar preparation, the ovum loses its susceptibility to impregnate, till another period arrives.

The whole course of the reproductive process, after impregnation, is, in many of its essential features, analogous to that of oviparous reproduction. Soon after this process is formed, the ovum descends to the interior of the uterus, where it undergoes a full foetal development. The uterine system is concerned in the nutrition and perfection of the foetus until it is brought to the birth; and great care should be taken that nothing, at any stage of early life, shall transpire to derange its functionary powers, and disable it for the purposes for which it was originally designed. The uterine system is liable to derangements of various kinds. One is displacement. This may be brought about by severe lifting; jumping, and striking hard upon the feet; long-protracted standing; severe exercise; tight lacing; weight of skirts, and other causes. Any cause, too, which tends to weaken the general system will greatly promote this derangement. Irregularities of menstruation often become matters of serious moment. Where daughters have been brought up under proper physical training,—if their discipline in respect to diet, open air, exercise, and other things, has been what it should be,—there will be little difficulty of this kind. But if parents have been guilty of neglecting these obligations, have brought up their daughters too delicately, have not given sufficient attention to the development of their physical powers, or have allowed them to have irregular habits of diet, by which their digestive apparatus has become disordered, serious results of this kind may follow. If they have not given them precautions against such causes as sudden colds,

exposure of the feet by thin shoes, long-continued cold feet, close dressing, costive bowels, and other hurtful influences, they may find occasion for repentance when it is too late to make amends.

Women often suffer from being brought under the burden of pregnancy too soon after marriage—before they have become sufficiently acquainted with the changes incident to married life, new associates, new duties, and new cares. The thousand ill feelings which generally attend the bearing of the first child, are too early thrown upon them, and they become oppressed, discouraged and heart-sick. Their real ills are magnified in their own mind, till they give up in utter despondency; and this desponding feeling is often so impressed upon the spirit of the child, as to give to it a distinct feature of character, perhaps for life.

Again: mothers often suffer from being overtaken with bearing too many children—more than the constitution can endure. The idea that the Creator requires a mother to have as many children as can be begotten, is insulting to common sense. We might as well say that no one law of Nature should ever be modified by any other law of Nature, or have its productive forces limited. We might as well argue that inasmuch as vinous fermentation was a natural process, therefore it was our duty to put all the materials together which were capable of producing alcohol, into such contact that this chemical result should be realized. The truth is, a law of Nature may be misapplied, and bad ends accomplished. When we see a natural law likely to apply its force too far, it is due that we repress its course, or avail ourselves of some other natural law which is able to modify its bearings.

It is right that we indulge the promptings of Nature in the use of delicious fruits, when such indulgence will not do any violence to other laws of life and health ; but when appetite is likely to infringe on other physical laws, it must be repressed until its indulgence will be in harmony with other departments of our nature. Married life is a dictate of Nature,—a means of health and longevity,—but its sole object is not the producing of children. This is only one object ; and no parents should have more children than they are able to bring up properly ; they should have no more children than the strength and constitution of the mother is able to bear. If she be overtaken in this respect, she is driven to needless suffering herself, brings her offspring into life to bear inherited ills, and sends out into the world perhaps half a score of children unfitted, through her inability to train them, to answer any good end in life ; whereas, if she had only borne a few, she could have saved her own and her children's health, and prepared them for usefulness.

Although Nature has made a law adapted to the continuance of the human species, she has appended to it some limitations, and exceptional clauses for our instruction and benefit ; and it is right and proper that people who are concerned in them, should know them, and avail themselves of the end for which they were instituted. There is not probably a single physician, of much experience, who will deny that there are many women, in married life, who ought to be excused altogether from having more children, or from having any at all. And what shall be done? Shall they divorce themselves from the duties of married life? Certainly not ; there is a proviso in the natural law of reproduction,

which Nature, for benevolent purposes, has introduced—which arrangement we are not to despise, or exclude from the practical purposes of life.

The law preventing the diffusing of knowledge upon this subject is certainly unconstitutional and should be repealed, and all foolish and bigoted fastidiousness against the promulgation of knowledge should be frowned down by all sensible people; for if a knowledge of this law of Nature were brought to a general practical bearing, under the dictates of intelligent reason and conscience, the world would be saved from immense physical suffering and moral devastation. Instead of there being so few born who are of any importance to the world or to themselves, compared with the hosts of real and half-blood vagabonds, who are only degrading themselves and mankind, a far larger proportion would be rightly trained and educated, and sent forth to elevate the sinking standard of humanity, and promote the physical, intellectual, and moral redemption of the world.

There is great sympathy between the female mind and her own reproductive system. The offspring, while in its foetal state, receives an imprint from the maternal mind, which, though it may afterward be modified, can never be wholly eradicated. It there receives a mental and moral mould, the great outlines of which can never be obliterated. We go into a family, and find some very different traits of character among the different children. Trace the history of these back to their foetal state, and the influences to which they were then exposed by the immediate operations of the mother's mind, and the causes of these differences will then appear. While the paternal influences give the first

great outlines of character, the immediate maternal influences give the smaller peculiarities.

Maternal Responsibility.—In anticipation of coming responsibilities, every young woman is bound to look well to herself. She can but know that the grand arrangement of Nature is that she shall become a mother. Let her also know that her own state of constitution will, in a great degree, be the type of that of her future offspring. The talent, the moral tone, and the physical health of that offspring will very much depend on her. Let her weigh this matter well, and prepare herself to meet approaching obligations. Let her be prepared to give the right stamp of character to that being that may hereafter be committed to her charge.

She should look well to her physical system. Let her diet and exercise be such as to secure a sound and well-balanced nervous system. Let her strenuously and scrupulously avoid all stimulating drinks and condiments which conflict with Nature's laws, and do great mischief to the brain and nerves: that she live naturally, and not artificially. Her avocations of exercise should be such as give expansion and strength to her whole muscular system. Let her take special pains to expand her chest, that her breathing apparatus may be free in the exercise of its vital functions; for without a full chest, she may plant the seeds of consumption in the constitution of her offspring before its birth. She should adopt a course of living which secures purity of blood. A large proportion of humors are transmitted from generation to generation. Scrofula is a disease which is inborn, through father or mother, in the constitution of thousands. This is chiefly the product of extensive meat-eating in their progenitors. It may be

accumulating its forces for two or three generations before its complete development.

Let her look well to the character of her own moral constitution. She should choose dietetic habits which favor moral culture; and which will tend to give a preponderance to the moral sentiment over the animal system. For the sake of her posterity, if for no other purpose, let her make herself an intellectual being. Let her not live for the mere purpose of mercenary and selfish gratifications, but for humanity. She should not live to eat, drink and sleep, but to answer the great purpose of her being.

She should also look well to the character of him who may become her matrimonial associate. Is he an intellectual being or a mere animal? Has he a good physical system, and has he a soul? Is he a sensual being, living for no other purpose than to fill up the measure of his appetites and passions? Has he corrupted his body and soul by dissolute habits? Are his habits of life adapted to secure to him a sound physical system? If his course of life is weakening and vitiating his bodily nature, a degree of moral imbecility will be likely to follow in its wake. Is he cultivating a sound nervous system, or is he wantonly pursuing a course that is diminishing the natural energy of his brain and nerves, which will unfit him to meet his responsibility to his posterity?

She should examine well his temperance habits. Does he appreciate the cause of temperance? If not, there is *prima facie* evidence, in the days of light, of a laxness of moral principle, which endangers moral rectitude. Is he a young man of total abstinence habits, or does he now and then take a pleasurable draft? If so, he is

dealing with that which may, sooner or later, "bite like a serpent and sting like an adder." Trust him not. He is gradually stepping forward and onward in that path which has conducted millions to ruin. Think of the unmeasured woes of the drunkard's family; then stand aloof and be excused from such a destiny. Is the number of the pure small? Then prefer single blessedness to double misery. Nay; let the young men of this generation know that they must quit their occasional drams, or go forever wifeless. Let them know that the young women of this generation cannot consent to share with them so fearful a responsibility as that of having a family of children whose only inheritance must be the hereditary taint of a drunken father.

Let her see whether there is any other hurtful habit of which he is the slave. If he be free from the corrupting and debasing power of alcohol, is he free from that slower, surer, and more deadly poison, tobacco? Let every young lady who sets any value upon herself, look well to this matter. When she sees a young man so lacking in the essential qualities of a gentleman that he needs a cigar to finish him, let her be determined that she will prefer the acquaintance of those who do not require this appendage. And let her never suffer herself to be courted by one of corrupted breath and TOBACCONIZED BRAIN. Let her never marry one whose habits will ever annoy her, and whose system is under a poison that is enervating the vital and moral energies of his whole nervous constitution, and that will affect her posterity.

Will any one say this is a matter of fancy and not of facts? How comes it that the general idea that the physical condition of parents has a bearing upon the physical character of children is universally admitted,

and yet there are no individual instances in which it is practically true? The truth is, there are individual instances the world over, and everywhere ; but nobody seems to realize it. In every instance where either of the parents' habits are contrary to physical law, they are doing an injury which will be more or less felt in the generations following them.

Let every young woman, and every young man, bring common sense and reason to bear upon this great and momentous subject. Let them so take care of themselves as to be prepared for the sober realities of life. Let them so fulfill their responsibilities, as that, when years shall have passed away, and their family circle is gathered around them, they may not have cause to look back with sorrow upon the past, and with fearful forebodings toward the future. Let them be so careful in the selection of connubial associates, that they may prove a mutual comfort to each other, and a blessing to the generations yet to come.

Let them beforehand count the cost of indulgence in intemperate appetites and sensual dispositions, which must inevitably tend to enstamp upon their offspring the grossness of their own physical and moral character. Let them not in this way make themselves responsible for the evil conduct of their children, which may bring their gray hairs with sorrow to the grave. But let them, by their physical, moral, and intellectual culture of themselves, be prepared to bring into existence a class of beings whose physical, moral, and intellectual character shall enable them to enjoy life, be an ornament to society, and a blessing to the world.

Make hygienists of all the men, women and children in America, and the dram-shops will close from lack of

customers, the distilleries will cease to waste the precious grains for want of patronage. Instruct the people in healthful ways of living. Show them the relation between diet and intemperance. Impress upon them the truth that more than half the drunkards in the land are made such at the dinner-table and around the domestic hearth. Show to them that rich pastry, highly seasoned viands, stimulating drinks, like tea and coffee, and irritating condiments, such as pepper, mustard, spice, etc., together with the wine sauces and the brandy pickles, are the seeds of drunkenness which germinate in childhood, and in youth develop the full-grown tree of intemperance.

Hygiene is the mortal enemy of intemperance. As its principles gain acceptance, and as its precepts are practiced, the great scourge of society will cease its ravages. Health reform is the only physical salvation for the race.

What shall be said of him who will go on in known hurtful indulgences—feeding unnatural appetites, or crowding his natural ones by unnatural burdens? Shall he be reckoned among intelligent beings—beings endowed with a soul? Inspiration calls that man a fool who seeks only worldly good, and neglects his higher destiny. And is a man any less a fool who knows no higher rule of life than the mere gratification of a depraved appetite; indulgence which hazards health and life, and lowers the standard of his intellectual and moral being? In doing this he puts himself on a level with the brute! Nay; he puts himself far below the brute. He cherishes appetites so low, vulgar, and unnatural, that brutes will not stoop to be his associates. Brutes will not sip the drunkard's drink; they will not chew the tobacco-eater's cud!

How would the ox, or the horse, the dog, or even the hog, degrade his nature, were he to use tobacco—that deadly thing which is working greater physical devastation to this generation than even alcohol itself! What would a man think to find his horse eating the poisonous stuff? Would he not be alarmed for its effects on his strength and durability? Every one of much intelligence knows it to be injurious to animal life. Let that same man ask himself whether his own body is worth less than that of his beast; and inasmuch as he has a higher nature, let it be saved from the benumbing influence of the deadly weed.

If he is endowed with reason, let him govern himself; let him study to understand, and resolve to obey the laws of his being, which are the LAWS OF NATURE. Let each one resolve to do what he can to turn back the mighty current of physical and moral declension which now threatens the extinction of the noble qualities of human nature, improve his higher being, and LIVE FOR HUMANITY.

CHAPTER VII.

DRUG-MEDICATION EXPOSED AND CONFUTED.

I TRUST this volume will be read with the interest it demands by the thoughtful and intelligent reader—its object being to point out the mischievous fallacy of drug medication, by which the world has been victimized for the last 3000 years, substituting in its stead a rational and natural system, pre-eminently successful in its results, simple as it is scientific, and healthful as it is natural.

No favor can of course be expected for such a system from the bigoted majority of drug practitioners, or the vested interests of the apothecary and drug vender, no more than the temperance cause could expect assistance from the distiller or licensed saloon-keeper, whose occupation it seeks to undermine for the general benefit of society. It can therefore only appeal to the common sense, intelligence and self-interest of mankind, by the force of whose voice alone reform must be forced on an unwilling profession.

I propose to show why persons should not be poisoned because they are sick—why such a “healing art” is absurd in science, and worse than useless in practice. And this will involve a refutation of the doctrine in which the practice is predicated.

All intelligent medical men will agree that drug medicines are poisons; and all persons will agree that poisons are *causes* of disease. Why should the causes of disease

be administered to cure those who are already diseased? Can two wrongs make a right? The moralist might as rationally prescribe lying as a remedy for stealing. "Cease to do evil," is the beginning of wisdom with the true physician, as well as with the moral reformer.

All drug medical schools teach that certain drugs have the power or capacity, inherent in themselves, to act upon certain organs or structures of the vital organism; and that some of them (termed blood-food, cod-liver oil, preparations of iron, &c.,) supply certain elements to the system which its tissues need and can use. Neither position is correct. Medicines do not act on the living system at all; nor can the living system appropriate or use, for the replenishment or development of its tissues, any drug or mineral substance, or anything except food, water and air.

And now for a few facts to illustrate: Tobacco-dust (snuff), occasions sneezing; ipecac occasions vomiting; jalap, purging; squills, expectoration; calomel, chlorrhœa; antimony, sweating; digitalis, diuresis; arsenic, inflammation; alcohol, stimulation; ether, exultation; chloroform, narcosis, &c. Because of these effects, tobacco is termed a sternutatory; ipecac, an emetic; jalap, a cathartic; squills, an expectorant; calomel, a chologogue; antimony, a diaphoretic; digitalis, a diuretic; arsenic, a tonic; alcohol, a stimulant; ether, a nervine; chloroform, an anæsthetic, &c.

Now, all drug medical schools teach, and the people generally believe, that medicines act on certain organs or structures preferentially, because they have a "special affinity" for those organs and structures. Thus, calomel is said to have a special affinity for the liver, alcohol for the brain, castor oil for the bowels, antimony for the

skin, astringents for the membranes, tonics and stimulants for the blood-vessels, emetics for the stomach, &c.

These are facts. And there are certain other facts which seem to complicate and confuse them, and, indeed, to upset the whole absurd, yet time-honored, "dogma of the dark ages," that medicines act on the living system. Every medical man of experience knows that the effects of medicines depend very greatly on the dose or quantity, and also on age, sex, temperament, habit, idiosyncrasy, diathesis, &c. For example, a very small dose of alcohol, opium, or tobacco, occasions a moderate disturbance of the whole system—the nervine effect; a larger dose occasions a greater general disturbance—the stimulant effect; and very large doses occasion prostration and insensibility—the narcotic effect. Small doses of emetic tartar occasion sweating, and larger doses vomiting. Small doses of calomel occasion salivation; larger doses, purging. Small doses of rhubarb occasion constipation; larger doses, diarrhœa. Small doses of corrosive sublimate, hydriodate of potassa, chloride of gold, &c., are said to be alternative; larger doses occasion inflammation; and still larger, emesis. Antimony, ipecac, protochloride of mercury, lobelia, and many other drugs, in certain doses, often repeated, occasion *at the same time*, expectorant, choleraic, emetic cathartic, diaphoretic, and diuretic effects.

Here are facts enough for one article, since no one of them has ever been explained by the medical profession. And now for the rationale. If these drugs really act on certain organs or structures in virtue of inherent affinities for those organs or structures,—it follows—and by irresistible logic—that the larger the dose the greater, invariably, is the given effect. But such is not the fact.

A small dose often occasions a certain effect in one part of the system; a larger dose occasions a different effect in a different part of the system; a still larger dose, a still different effect somewhere else.

How are these facts to be explained? They never have been explained, and never can be, on the theory that remedial agents act on the living system. All attempts at explanation on this theory have only made confusion worse confounded, and now the medical profession is obliged to confess that the *modus operandi* of medicines is a profound mystery.

But, on the theory which is taught in the National Institute of Science, Chicago, the whole mystery is solved in a moment, and the principle involved becomes a self-evident truth. It explains, also, to an absolute demonstration, why the effects of medicines are so dependent on, and so constantly modified by, the ever varying vital conditions of the patient.

The living system acts on the medicine. It acts upon them to resist them as poisonous, and to expel them from the organic domain. Instead of their being affinity between poisons and living structures, there is constant and eternal antagonism, and nothing else. Again, drugs are dead, inert, inorganic substances, and possess no inherent or other power to act on living matter. The living system is inherently active in relation to other things as a condition of existence. In the relations of living and dead matter, the living system is active, and the dead matter passive. This is but the simple statement of a law of Nature. But the medical profession, in teaching and practicing the contrary, has just reversed the order of Nature, and has given us a false science and a most disastrous practice.

Tobacco dust (snuff) is expelled from the nose by a process termed sneezing. Now, sneezing is not the act of the snuff, but of the nose. Ipecac is ejected from the stomach by the process called vomiting. Is vomiting the act of the ipecac or of the stomach? The living system always resists and expels poisons and impurities in the best manner it can under the circumstances. Thus, if a small quantity of emetic tartar, or ipecac, be swallowed, the system can best get rid of it through the skin by perspiration. If a very large quantity is taken, it is resisted more powerfully in the first passages, and vomiting occurs. If a small quantity of opium, or alcohol, is swallowed, it is expelled most conveniently (with the least wear and tear of the organism) through the general circulation, and the process is called stimulation. But the drug does not act on the circulating vessels, nor does it impart power, or anything else, to the system. It is simply *carried through the system*. The vital structures carry it through the circulation to the various emunctory organs, where it is eliminated from the body.

If a very large quantity of opium or alcohol is swallowed, it is resisted so powerfully in the first passages, that vomiting, or narcosis, occurs; not that the drug acts on the stomach or brain, but the actions of the living system are so intensely determined to the first passages, that the functions of the brain are necessarily suspended.

This rationale of the effects of medicine affords a conclusive reason why poisons should not be administered to sick persons, nor to well persons. Poisons make the well sick, the sick sicker. Every drug, every dose, provokes vital resistance, and causes waste of vital power.

So far as drugs cure a primary disease, it is only by occasioning a drug disease.

But disease should not be cured. Disease is itself the remedial effort—the effort at purification and reparation. It is vital action in self-defense. For 3000 years physicians have been dosing and drugging sick folks with all the poisons of earth, air, and sea—all the foul things of the vegetable, animal, and mineral kingdoms, in the attempt to do what never should be done—cure disease. They have, through all these long ages, been warring upon the vitality of their patients. No; I repeat, disease should not be cured. Curing disease is practically killing the patient. It is the patient, not the disease, that physicians should aim to cure. And to cure a patient means to restore him to the normal condition, not to poison away his vitality. The True Healing Art, consists in removing the causes of disease, not in suppressing the remedial effort.

The popular system of medicine has neither philosophy nor common sense to recommend it, and that the best good of the human family requires it to be discarded at once and forever.

The drug system is founded on a total misapprehension of the true nature of disease; instead of recognizing in the latter a friendly recuperative and purifying process on the part of the animal economy (an action quite as natural as that of health, only occurring under abnormal conditions), it looks upon this action as hostile and unfriendly, as one to be opposed, thwarted, and put an end to, instead of encouraged, assisted, and judiciously directed. Hence, all their treatment, based on a false foundation, is directed to make war upon the powers of life, suppressing and silencing them by administering

deadly poisons, from which destructive process a fatal and disastrous practice does and must necessarily result. In illustration of this proposition, let us take a simple case of skin eruption. Here the Hygienic physician, recognizing a natural effort of the body to expel some irritating or poisonous substance through that great scavenger of the system, the skin, aids and assists that effort by increasing the eliminating power of that organ, by means of the hot air bath, wet pack, or other Hydropathic appliances; succeeding in this, the poison is expelled from the system, and the eruption *disappears concurrently with the withdrawal of its cause*. Let us now contrast with the foregoing the practice of the drug physician, of which it is the very antipodes. Looking on the eruption in question as an entity, an enemy at war with the system, hostile and inimical in its operations, he at once proceeds to suppress it, and succeeds in doing so by *concentrating* the irritation *internally* (*whence* Nature was trying to *expel* it), by the administration of arsenic, mercury, iodine, or other poisons. The skin then assumes for a time its wonted appearance, and the patient being thus considered cured, is immediately congratulated on his recovery. But what is his real condition? The friendly effort of the system to remove an *internal* and *dangerous* irritation to an *external* and *safe* position has been defeated, and the system has been drenched with poisons, in addition to that originally oppressing it, whilst *not a single step* has been made to *remove* the first *offending* cause. When, after the lapse of some little time, the system has perhaps again collected strength, another effort to throw the internal irritation on the surface is made, to be again repelled by another course of arsenic, mercury, iodine, and astringent lotions,

with similar results to those already mentioned, and so on to the end of the chapter. Under the one mode of treatment, a radical cure becomes effected by the expulsion of the offending cause, without injury or detriment to the health, but on the contrary *pari passu* with its marked improvement; under the other, the disease is never cured, unless in *spite* of the treatment, and the health becomes seriously injured, as a necessary consequence of the frequent administration of poisons. One system seeks to *remove all* sources of *poison* from the body, whilst the other as sedulously *pours fresh poison* into it. Can anyone, except a drug practitioner, for a moment doubt which mode of treatment is the most rational and natural, and consequently likely to be, as in practice it has ever proved to be, the most successful?

My object in writing this book is to make people acquainted with the laws that govern their system, and thus enable them to assist Nature in building up a strong and healthy body by means of Nature's simple remedial agents, and without the employment of injurious drugs.

Ever since the time of the Greek physician Hippocrates, there have been cures effected by water and the remedial agencies of Nature. At all times intelligent men and women have attained a cure or recovered their health and their youthful vigor by following, either consciously or unconsciously, the lessons of Nature.

Drugs have never cured a disease. Cure is possible only by and through the elemental forces of food, air, light, heat, and water. Health is possible only where there is abstinence from all those things against which the voice of Nature warns the normally healthy man, especially from poisons, drugs, and potions.

Disease itself is the remedial struggle. It is an effort

of the living system to expel injurious substances and recover the normal state. Hence the business of the true physician is to aid and assist this effort by supplying the conditions that will render it successful. Sneezing is an effort of Nature to get rid of an accumulation of mucus, and coughing is also an effort to expel the morbid matter that has accumulated in the lungs—or in other words an attempt of Nature to expel a foe and to heal herself.

When drug doctors are called to patients who have a cough, or who are affected with a frequent sneezing, they generally administer or prescribe chemical and inorganic elements, and substances (poisons) which the living system cannot use, but must resist and expel; hence, instead of assisting Nature to expel the foe that has already taken possession, they blindly increase the burden, and assist to weaken the fortifications of life, and if Nature should win the battle by some great effort of constitutional powers, the patient is left so weak and debilitated as to be more than ever susceptible to bodily and mental ailments. The drug practitioner then prescribes daily doses of medicine. This course has led people almost universally into the practice of *poisoning themselves because they are sick*. If, after all, the patient should die, they attribute it to the will of God, and declare that nothing in the world could have saved him; but if the patient should recover, they attribute his recovery to their own skill and to the virtue of their treatment.

The Hygienic practitioner uses, as remedial agents, such things only as are normally related to living structures, as air, light, exercise, bathing, diet, rest, sleep, temperature, animal magnetism, manipulations,

and other agents that will purify, tone up, and invigorate the system. In cases of cough, sneezing, &c., the true Hygienic physician would remove the cause, open the pores of the skin, and cause the morbid matter to pass off through all the excretory functions, so that Nature may have nothing to impede her renovating processes; he would not suppress the vital manifestations and destroy the life forces by poisonous drugs.

The sooner we learn that sickness is caused by a violation of the laws that govern our being, the better will it be for this and future generations.

People should be educated and made acquainted with the laws of life and health, in order that they may know how to ward off disease, and thereby secure a high condition of health and vigor, which we maintain to be the *natural* state of man, of animal, and of *all that lives*; but which can only be secured by adhering strictly to the "health laws." When people are made acquainted with the laws that govern their system, they will see the error of "curing one disease by producing another," or by trying to *cure* disease at all, for by so doing they kill the patient. *Persons*, not diseases, should be cured.

When this happy time arrives, people will not submit to be poisoned by drugs, nor be compelled to submit their children to the blood poison of the vaccinator; they will perceive that medical men make sad mistakes, and kill thousands of people annually by poisoning because they are sick, and if any person is so rash as to imply that their mode of treatment is irrational, he is branded as a "quack" and "impostor," especially if he has not been trained at one of their medical colleges, and secured the same class of diploma as themselves. Besides, medical men feel bound to stand by each other,

and they are protected by the laws of the country, so that if they should kill their patients with their poisonous drugs they are quite safe, and are *licensed* to do it ; but if any practitioner outside of their charmed circle should lose a patient by death, they raise the "*hue and cry*" at once that he has *killed* somebody, and they try to get a "case" against him. Skill and experience avail him nothing, even if he has cured thousands, so long as he is not licensed to practice by a class of monopolists.

It is a well-known fact that the old medical system promises what it cannot perform. It is based upon pretension ; yet medicine is called a science. It is really empiricism, quackery from beginning to end. It is "try this, try that, try the other thing ;" hence people are being continually experimented upon by their doctors until their constitutions are completely undermined. By reading the following pages you will see that, on their own confession, it is the more medicine the more mischief ; but the Hygienic system does not pay well enough to support a carriage and pair, neither is it respectable enough, because its practitioners have to work hard, and have to sweat at their work ; but whoever knew an orthodox doctor to lower himself so much as to resort to such vulgarity.

There are two different classes of human beings : those who think for themselves, and those who learn by heart the thoughts of others. The first category only admits what is reasonably proved,—the second believes in what authority suggests to be true.

Homeopathy contests the materiality of the causes of disease while admitting its dynamity ; but what is dynamity? Dynamic is neither material nor spiritual,

is a middle thing between them both, viz., spiritual-like, so the homeopaths say.

Hahnemann very piously ascribes his grand discovery not to his own brain, but to the Lord! Oh, Lord, Almighty, how many foolish things people pretend are thy doings, even this nonsense of decillion particles! No, my dear Hahnemann, this discovery did not emanate from God, but out of your own scanty brain; you may uncontestedly claim this discovery for yourself. After all, homeopathy does at least amuse, make the public laugh, but at allopathy you cannot laugh, you shudder and a cold chill creeps over you.

Perhaps we ought not to ridicule homeopathy considering, with thanksgivings, its great usefulness, inasmuch as homeopathy has saved thousands from being poisoned by allopathy. Still, if this chimera could excite such wonder and make its inventor known all over the world, *what a lamentable, dreadful thing the medical allopathic art must be.* It is easy enough to explain how Hahnemann bethought himself of his decillion particles. Convinced of the harm the former large doses of poisons did, he tried to make them smaller and smaller, thus succeeding better and better the less poison he gave. So natural! for so much more freely the organism itself could develop its healing power.

No wonder that the Hygienic system is spreading rapidly throughout the world, for it accords with Nature—in fact it is Nature's own plan—for when the system is surfeited with morbid matter she forces it out in a crisis, and expels it through every outlet, when she has sufficient strength; but if she has not power enough to do so, she is aided in her great work, and this is the main reason for

the success of this system—while the drug practitioner weakens and destroys the vital power.

Whoever knew a doctor to take his own pills and potions? Perhaps a few of them do so just to keep up appearances, but the great majority of them depend solely on Hygienic treatment for keeping them in a good state of health. Surely, if it is good for the doctors it would be good for their patients; but no, it would not pay; besides, physic is so much easier applied, and wrapped in so much mystery that heavy prices can be charged for it, even if it costs only one penny per bottle.

Reader, I have opened your eyes, I have uncovered the pitfall into which mankind stumbles. Now do as you like, if still you persist in partaking of poisonous drugs, you will but hasten to your ruin.

Not only should taking physic be left off, but you must renounce wine, opium, cigars, tobacco, alcohol, and similar poisons.

The rubbish and decay of vices, the dust of science, but, above all, poisoning by medicine and intoxicating drink have made a caricature of man, making him look more like an ape than a human being. Look at these wretched frames—weak-loined, with swollen joints and prominent belly; do you imagine that to be a man! If you did it would be blaspheming Nature. Nature wants and creates man beautiful and vigorous from head to heel; his limbs ought to be the very embodiment of graceful strength.

Wretched mankind! how ugly, how miserable hast thou become by hellish therapeutics, taught by men largely paid, decorated with orders and ribbons! Thou believest, oh, mankind, that, being born and bred in misery, earth is a vale of tears! Oh, no! earth is a place

of recreation, a paradise, but for the healthy ones only! It is amusing how those individuals, unable to free themselves from the awe of science, unable to have thoughts and ideas of their own, how these people talk of their fellow-creatures. When anyone dies, they ask from what disease, and ask with so little wonder, as if death resulting from disease was a law of Nature! Oh, no! man is meant to die from old age, without pain, without a moan, so Nature will have it, and so all wild beasts die, so those human beings die who live according to Nature's laws. But with mankind in general how many die from old age, without pain or disease? Not one in a thousand. More still, Nature's purpose is not only that man should die without disease, but that he should live without suffering internal pain.

With us people of seventy are reckoned very old, most of those who suffer from chronic diseases even die between fifty and seventy years of age. And our life of fifty or seventy years, is it life? No, it is a pining away, a chronic death during seventy years, before we are released. From our very birth, when midwife and nurse force on us chamomile tea, this pining away begins and continues on until we breathe our last on our dying bed, surrounded by bottles with physic, and suffering from their effects. Then our friends will console themselves with having done everything, having provided a physician, perhaps even three or four.

By Nature's law each creature when fully grown should preserve its shape unto the end of its life, man as well as beast, including those tame animals which are not overworked. A horse or dog's shape does not show whether these animals are half way or at the end of their life; we have to open their mouths to know it. And

then, does a hare's grandfather look stouter than a hare two generations his junior? Such is the case with man when he lives according to Nature—the female preserves her youthful shape until old age; the male more so still.

But with us, if once a woman of forty or fifty years has preserved her figure, every one is surprised, though such should be the case with all women, while in reality, past thirty they nearly all lose their slender, vigorous form of nature and beauty. Women—I speak only of those who originally were well made—when past thirty either grow morbidly fat or thin like a picture of starvation. A natural waist combined, with well-formed, elastic and firm limbs, is rarely to be seen, and hardly ever in advanced age.

Still, Nature did not intend human beings past thirty to become a waddling cask or a walking skeleton; Nature indeed abhors changelings and caricatures.

What then ought we to do, to regain for ourselves, or at least for our descendants, our original human vigor and beauty? Go back into the woods and turn savage again? My opponents would like to impute to me this ridiculous remedy! No, we need not renounce any of the true pleasures and comforts of civilization; we need only combine with these the advantages of natural life.

There are persons who since childhood have had pale cheeks, but these are only the result of an acute illness in early youth and subsequent treatment by physicians, whose medicines turned the acute disease into a chronic one. Often have persons suffering under such a latent state of illness, called back by a proper treatment their former acute disease, and when finally cured, they recovered, to their surprise, the rosy cheeks which since their childhood they had not possessed.

In a similar way people quite bald, when subjected to a treatment of Natural cure, engendered a fresh growth of hair, which developed into luxurious locks. Any attempt to obtain a similar success by essences, oils and tinctures, viz., by medicine, is based on the same error, that medicine restores health, and is equally absurd.

Equally remarkable is the velvet-like softness and suppleness the skin acquires by a radical cure. The soft transparency of the blood-color is the result of recovered health; the veins are again replete with blood which, owing to the chronic illness, had formerly become scarce, and did not flow with sufficient force.

Our best painters are in despair how to procure models for the limbs transparent with blood which they need for historical pictures; those arms and legs offered as models are seldom different from the limbs of a corpse.

Few animals can bear as much toil, can work as hard as man, in a condition of perfect Nature. The strongest horses and dogs are outwalked by men. Savages, pursuers or pursued, are said to have ran through the woods incessantly during three days and three nights without resting, sleeping or eating, leaving far behind them the tired horses and dogs. With some even in spite of an unnatural life, Nature still proves sometimes what she made man capable of. No animal could outrun that noted Norwegian, Ernst Mensen, who, lightly dressed, went through the Arabian deserts and outran tigers, &c. Wood Rogers reports having seen on the isle Juan Fernandez a man overtake and catch a wild goat. Similar feats are not rare. Though man has neither claws nor teeth, he, without artificial weapons, has often fought victoriously with the strongest carnivorous beasts, using only the strength of his muscles, a

club or a stone. Samson's and Hercules' fights with monsters are not against possibility.

Entire books might be written on curious, reliable facts showing how perfect in body some races, especially savages, formerly were. As regards muscular strength and beauty, I can assert that originally the Caucasian race surpassed all others, even the Ethiopian. It required much corruption to bring down to the same level as others the Caucasian race, which, if it had continued to live according to Nature's law, and avoided the now adopted false, destructive way of civilization, would have preserved its supremacy in strength.

The more man gave way to effeminacy and to the vices of overcivilization, the more his original giant's strength shrunk into that of a dwarf's compared with the ancient Germans, clad in a bear-skin. Even the knights clad in armor of the middle ages were weak and degenerate; still what are we compared with the latter? Put the heavy helmet, which even a knight's attendant wore, on the head of a soldier of our day, and make him fight even for one day, and the poor soldier would succumb ere one hour passed. What if the complete armor of a knight of the middle ages be placed on an officer of the present day, and make him fight from sunrise until sunset? Until the sixteenth century the corruption and effeminacy of the European people slowly increased. Then this decadence was hurried on by several causes supervening. Firstly, from that period dates the use of aromas and spices, especially coffee, imported from countries newly discovered, though this was a minor evil; secondly, leprosy and syphilis penetrated into all countries, into palaces and cottages; thirdly, that superstition that poisons restore health be-

came popular, so that a race of medical poisoners sprang up and henceforth everyone swallowed poison. Not content, vaccination was invented; so when disease did not come of itself, it was provoked by vaccination. With the learned (?) physician's work began the worst misery mankind ever became plagued with. Finally the pestilence of whisky and tobacco joined that of medicine, and this triple alliance may yet succeed in exterminating mankind.

My object in publishing this book is to lay down such simple rules of health that people may be their own physicians, and that will enable the sensible physician to advantageously advise the sick who come under his care. I do not seek to gain patients by its publication. I have no medicines to advertise, and would rather have people read the book, treat and cure themselves than that they should come to me for treatment.

It may be thought that I have said some very hard things about the doctors. I do not wish to implicate them all, neither do I like to say that they are always to blame for giving their patients nauseous medicine. I feel thoroughly convinced that in the majority of cases if one doctor will not give medicine, the patient will go to another who will, and the honest doctor would lose his patient; hence the people would rather pay heavily to be dosed with medicine, than they would to give an honest physician a reasonable fee for telling them how to cure themselves, which, in plain language, is bribing them to be dishonest.

I am acquainted with a number of honest men in the faculty who are noble-hearted, generous, self-denying and hard-working. Such men I admire, and would encourage them in their great work; but alas! there are

too many of the other sort who know very little about disease or its treatment, but they believe in giving plenty of physic, right or wrong. Such men generally think they know more than anybody else. They adhere to the old prescriptions given in medical works, and they do not trouble themselves to study each case separately; hence they treat their patients in a haphazard sort of way. Such men are not fit for physicians, but so long as they have secured their diploma there is no remedy but to allow them to go on with their work of destruction.

All who doubt my assertions with regard to medical men, may find ample proof for themselves by watching the results of the treatment given by medical advisers of their acquaintance.

Nature has provided penalties, and among them pain and sickness, as a violation of her laws; but she has not provided medicines to do away with the penalties! Pain and sickness is the reward of sin, and to stop them we have but to do right. How absurd, then, is the doctrine of physic! There is no philosophy in the drug system, and the sooner all men know this the better.

Thousands of people are killed by taking medicines prescribed by their doctors. One eminent physician, while lying on his death-bed, said: "I wish I could be certain that I have not killed more people than I have cured!" The habitual taking of physic is very destructive to the health, and, I believe, has killed more people than even that wholesale destroying engine—WAR!

I strongly object to drugs of all kinds, because they do not act in the beneficial way they are supposed to do. Drugs, according, are as so many poisons; and the assertion is supported by medical books,

which speak of the effects of drugs. Favorable symptoms may, and do, occur whilst drugs are being taken; they are seen, not because the drug was taken, but independently of it. Many cases are made worse, or recovery is protracted by the use of drugs, whilst some are even killed or their death hastened by them. A drug may apparently produce symptoms of good, but we must recollect that if it stops the disease in one part that it will break out elsewhere in a different form. Disease is really a cleansing process and is beneficial.

I know that in bringing this system before the world that I shall encounter the prejudices of established customs. I have to encounter those of medical men who are wedded to the drug system, because they are brought up to it, and man is not prone to change a life-long opinion instilled into him at an impressionable age. I must also expect the ill-will of chemists, druggists and patent medicine venders, because they get their living by the materials they sell. Many of the general public will pooh-pooh the system, for if they are ill they imagine they have only to resort to drugs to get well. But truth is truth, and must be spoken, whatever the results. The system must be launched; I have tested it for myself and it has proven perfect; now it remains for the public at large to try it and judge if it is not better than any other.

If a man wants to get on in this world he must make a study of his profession and look after details. So if he wants to be well and live long he must study the laws of life, apply them, and then he will succeed. The ultimate end of riches is to get pleasure from them and make life happier. But what use are riches unless a man has health? Riches will not buy it; one must

search for it, and follow rules for attaining it as much as one does for getting rich. As wealth comes from looking after the trifling expenditures, so health comes from the observance of small things, which are insignificant in themselves, but which if neglected are a force to bear one down to the tomb. Wealth comes not from our income, but from the amount we save of it, so health comes not from the amount we have to go on with, but from the amount we keep, by not expending it on trifles which waste our strength and give us no return. Persons can save money for a rainy day or for emergencies, so we can save health for old age or for the emergencies of accident or illness.

The drug system is a delusion by which persons hope to sin against the laws which govern them, and avoid paying the penalty by taking nauseous drugs. It is an attempt to cheat Nature. In other words, you break some of Nature's laws which govern man, suffer in consequence, and then rush off to the doctor to try to avoid the penalty. If such a result were possible, then there would be no need for right living, you could eat, drink, smoke, etc., and all you should have to do would be to take some drug and soon be well. But unfortunately for such a theory drugs do not cure disease. In the laws of our being it is enacted that he who breaks a law, knowingly or ignorantly, must pay the penalty due. A person sins and then takes some nauseous drug, but this does not prevent the disease. The disease must run its course, and you have then to combat both the disease and the drug. The particular symptoms may be quieted by a narcotic or some other drug, but the disease itself remains.

Most complaints will get well of themselves in time,

if the cause which induces them is removed. Many persons feel better when under medical treatment; expectancy or faith keeps them going. The day they stop taking the drugs or going to the doctor, the malady returns. This is like toothache stopping at the dentist's door, but returning when we get home. When a person is out of sorts, he goes to his doctor, relates his symptoms, gets some medicine and expects a cure. He takes the medicine, and in a few days feels a little better; gets more medicine, feels still better; and a third bottle completely cures him, so he believes. This is given as a proof that drugs do good. Let us examine the case carefully. First, he is out of sorts, he takes some medicine, and in a few days or a week is well. I should at once say that the person who brought this forward overlooked two things. First, he did not know that disease is usually a beneficial action, and sets the system right by this apparent upset, and in the second place he did not take time into consideration. As time softens most sorrows, so it cures most complaints, if they are curable and if the exciting cause is removed. Some diseases are cumulative, that is, they only show themselves when a certain amount of poison has accumulated in the system. Then they boil over and upset the balance of health for a few days, and all goes on well until another attack comes on and gives them another period of freedom.

The drug system is wrong because it professes to do what is impossible. If such a thing as cure by drugs were possible every dose of medicine would work a miracle, and doctors would be worthy of worship. Medicine professes to undo the ills caused by our neglect of hygienic laws. Carry the reasoning out to its

just conclusion ; we say it removes the result of our breaking Nature's laws and makes us whole again. Then we should never die, because by appropriate doses of drugs we should be kept constantly whole. But as some would say we must die, then I ask why die of any disease before seventy or eighty then, if appropriate drugs will banish all diseases? Drug treatment is wrong on the face of it, or why the immense number of deaths of persons in their prime, who have the best help that money can get? Does every-day experience bear out the idea that drugs do any of the good they profess to do? Experience does not, else why the chronic invalids? Why the number of doctors there are? Why the innumerable drugs there are? Why the various systems of medicine? One drug is in fashion for a time, and gets its firm supporters ; who hold fast to it. Gradually it falls into disuse and another takes its place to be supplanted by another, and so on, everything by turns and nothing long. Medicine men are now chasing the shadow and leaving the substance. One day you have one drug given for a certain disease, and next day another for the same thing. Cases are printed in the medical papers of cure by its use, and it looks genuine. Time passes, other drugs come in and cure like cases ; many of the drugs are entirely opposite, yet they all are prescribed for this one complaint. Anyone outside the arena seeing this, would say if all cure it, then none cure it, there is another power at work besides, which has not been reckoned in. This outside power is the recuperative power of the system, which cures all our complaints, and the credit of the cure is given to the last drug used.

If the drug system were put on its trial before a legal tribunal, and the evidence was heard for and against it

by twelve common sense and unprejudiced men, it would be condemned, not only as worthless, but also as a dangerous practice and destructive to health.

Drug medication is really a relic of superstition. The special R which one sees at the head of a prescription is an invocation to the heathen god Jupiter. In ancient days sacred relics, bones, bits of garments, etc., were kissed, worn, or put on a sick part to cure it.

Every dose of medicine given is an experiment tried at the risk of the patient, and in some cases the patient has to repent his ill-timed rashness.

Drugs give rise to abnormal action, and it takes a very clever doctor to know which symptoms of the disease are due to the drug and which to the disease, unless the drug produces well-known and prominent effects.

A person has abdominal pain, he takes opium to relieve it, it relieves pain by paralyzing the nerves of the part. The pain is there, only the person does not feel it, as the nerves are paralyzed. When once a person takes a dose of medicine (the more powerful it is the worse for him) he lets into his system a poison whose workings he does not know the end of.

The action of the drug on the system usually does more harm than the disease itself.

Treating syphilis by mercury means a destruction of the red blood corpuscles, and some life-long complaints afterwards which are put down to the disease and not to the true sinner, the mercury. In this case the mercury does not cure the disease, it simply keeps it from showing externally, for if the person who has it marries under two years, his children will show evidence of it. The list of drugs whose use is harmful could be prolonged until every drug was condemned.

Some of my medical friends may ask how it is, then, that if drugs are so harmful that they have not killed many, and so drawn attention to their use. In reply, I can only state that not more than three-tenths of all the prescriptions given are poisonous, the other seven-tenths are "Medicines given to amuse the patient until Nature cures him." If powerful drugs were given in every case the outcry against them would soon put them down, as they would give rise to disastrous results noticeable by all. Thus the public are mystified, they take a harmless drug, Nature cures them, they praise the doctor, and are of the opinion they would not get better if they had not taken some bitter dose.

This healing power of Nature cures in spite of the nasty potions of the doctor. It is part and parcel of our organization, and were it not for this we should soon come to an end.

I ask thinking, sensible people to think over the ideas I have here put forth. If they appear good to them let them adopt them, and live in such a way as to avoid illness. If illness does come on, let them look upon it as a warning that they have broken some law; they are paying the penalty when they are ill. If you can discover what you have done wrong, then avoid that evil for the future.

There are many earnest men in the medical profession who will accept willingly these ideas, as it gives them a hope of curing disease in many of what are called incurable cases. Some may say, if this is true then good-bye to medicine as a profession, for any one who studies food, exercise, air, bathing, etc., can cure, or he may say if people only follow out these rules there will be little for doctors to do.

I do not hope to convert all classes of persons to a belief in, and practice of, the Hygienic treatment. It is too much trouble for indolent and dirty people, the majority of whom wish to sit still and get well without effort or self-denial. They would rather take physic and purge themselves nearly to the edge of the grave than resort to Hygienic measures and be restored to a high condition of health. It requires, no doubt, considerable will-power and spirit for a person to take a cold sponge-bath on rising from a warm bed ; but this is one of the surest means of warding off colds and other diseases. Neither do I expect to convince gourmands that they should be abstemious in eating and drinking, for such people seem to live to eat, instead of eating to live. I have done my part in giving the information herein contained, and having done so, my highest reward will spring from a consciousness of having laid down rules which, if adhered to, will be a blessing to mankind.

CHAPTER VIII.

SOME OPEN SECRETS.

THERE is nothing that has contributed more to our present physical deterioration, than the old school practice of physic. The moment an individual begins to dose himself with poison, even though he take it from the hand of a diplomatized physician, he impairs his health, and inflicts an injury upon his constitution. Under these circumstances, if it should be his lot to rear a family, he transmits his own infirmities to his children, and they become the victims of early disease. Thus it is that our country is filled, from one extreme to the other, with the sick, lame, blind, feeble, and emaciated, who have no hope of a termination of their sufferings, but in the embrace of death. Our luxurious habits have no doubt done much in rendering our physical condition what it now is, but a more fruitful source of mischief is to be found in the employment of mineral and vegetable poisons. Dr. Rush said, "We have assisted in multiplying diseases; we have done more—we have increased their mortality." Of the truth of this there can be no doubt, and though Dr. Rush was an advocate of the "heroic practice," he had sagacity enough to discover that it was founded upon erroneous principles.

There are many facts which go to prove that diseases are multiplied by the use of poisonous drugs.

People, however, rarely reflect that their diseases are often occasioned by following the advice of their physi-

cians. A single dose of a poisonous substance will sometimes lay the foundation of an obstinate and dangerous malady. A medical man residing in a small town on the borders of a river used to recommend the people in his vicinity to take one or two calomel powders as the autumn approached, to guard against bilious attacks, and keep the liver in a "healthy state." Many followed his advice, but they were nevertheless more sickly than their neighbors; and at the end of each year they had enormous fees to pay for medical attendance. The physician rode in his carriage, and erected a splendid mansion; but the people who had helped him to these comforts and elegancies, little suspected that he had been making a trade of their health and lives.

The reflection must force itself on every candid mind, that the medical faculty are incapable of removing disease with any degree of certainty, or they would receive a greater degree of public confidence than has ever yet been accorded to them; indeed, people generally seem to regard them with an instinctive horror, and some of our most intelligent and sagacious men, whose judgments are not swayed by narrow minded prejudices, have frankly and openly declared that they had no confidence in the skill of the medical fraternity.

Sir Walter Scott observes of Napoleon, that he never obeyed the medical injunctions of his physician, Dr. O'Meara. He obstinately refused to take medicine, notwithstanding all the persuasion that was employed, even when it was supposed that his disease would prove speedily fatal. He held many disputes with his medical attendant on the subject of physic, and one day answered his reasoning and arguments thus: "Doctor, no physic-ing. We are, as I already told you, a machine made to

live. We are organized for that purpose, and such is our nature. *Do not counteract the living principle.* Let it alone—leave it the liberty of defending itself—it will do better than your drugs.”

Why was Napoleon so averse to medical treatment, but that he had seen the ill effects of it in his court and camp? He was always surrounded by distinguished medical men, and if he had found them able to cure disease, he would have felt no reluctance in employing them in his own case. But, no; his slaughtered troops on the field of battle were scarcely equal, perhaps, to those who died in the hands of the physicians and surgeons after the conflict was over, and he was convinced that their prescriptions could be of no avail—that they would, in fact, add to the violence of his symptoms, and in all probability hasten his death. Napoleon was a shrewd observer, and if he had been a physician instead of a warrior, he would no doubt have introduced many salutary reforms into the healing art, and divested it of many of its gross and palpable absurdities. His single assertion, “*Do not counteract the living principle,*” speaks a volume of itself, and shows how well he was convinced that poisons or deleterious substances, have no other effect than to derange the health, and impair the constitution. In stomach complaints, to which he was liable, says Sir Walter Scott, abstinence was his chief resource, and the bath was frequently resorted to when the pangs became more acute. He also held it expedient to change the character of his way of living when afflicted with illness. If he had been sedentary, he rode hard and took violent exercise; and if, on the contrary, he had been taking more exercise than usual, he was accustomed to lay it aside for prolonged repose.

Thomas Jefferson, the statesman and philosopher, who had opportunities for becoming well acquainted with the fashionable practice of medicine, does not speak of it in terms of favor, or even respect. "From the scanty field of what is known," says he, "the adventurous physician launches into the boundless regions of what is unknown. * * * I have lived to see the disciples of Hoffman, Boerhaave, Stahl, Cullen, Brown, succeed one another like the shifting figures of the magic lantern, and their fancies, like the dresses of the annual doll-babies from Paris, becoming from their novelty the vogue of the day, and yielding to the next novelty their ephemeral favors. The patient, treated on the fashionable theory, sometimes recovers in spite of the medicine, but the medicine is given the credit, and the doctor receives new courage to proceed in his bold experiments on the lives of his fellow-creatures. I wish to see an abandonment of hypotheses for sober facts, the first degree of value set on clinical observations, and the lowest on visionary theories."

The Rev. John Wesley, so much famed for his enthusiastic devotion to the cause of piety and religion, was no friend to the fashionable and speculative practice of physic. It would afford me pleasure to quote somewhat at length from his writings, but my limits compel me to rest content with a few brief extracts. He observes, "As theories increased, simple medicines were more and more disregarded and disused; till, in a course of years, the greater part of them were forgotten, at least in the politer nations. In the room of these, abundance of new ones were introduced by reasoning, speculative men; and these more and more difficult to be applied, as being more remote from common observation. Hence

rules for the application of these, and medical books, were immensely multiplied, till at length, physic became an abstruse science, quite out of the reach of ordinary men."

"Physicians endeavored to keep the people in ignorance of the healing art, by filling their writings with abundance of technical terms, utterly unintelligible to plain men; and those who understood only how to restore the sick to health, they branded with the name of empirics."

Let me now place before you the following opinions of the most eminent drug practitioners, regarding their own system, promising that the severest and most condemnatory language that its greatest opponent could employ against it, will be found to be more than equalled by the recorded confession of its most eminent disciples. It is difficult to understand how men could conscientiously continue to practice an art which they so fearlessly and unsparingly denounced:

Sir John Forbes, late Court Physician to the Queen, and the distinguished editor of the *British and Foreign Medical Review*, thus records his opinion of drug medication, the result of the *experience* of a professional life: "Firstly—That in a large proportion of the cases treated by allopathic physicians the disease is cured by Nature, and not by them. Secondly—That in a lesser, but still not a small proportion, the disease is cured by Nature in *spite* of them; in other words, their interference opposing instead of assisting the cure. And thirdly—That, consequently, in a considerable proportion of diseases, it would fare as well or *better* with patients, if all remedies, especially drugs, were abandoned;" and he emphatically adds, "Things (*i. e.*, the

state of physic) have come to such a pass that they must either mend or *end*."

The venerable Professor Alexander H. Stevens, M. D., of the New York College of Physicians and Surgeons, in a recent lecture to his medical class, said: "The older physicians grow, the more skeptical they become of the virtues of medicine, and the more they are disposed to trust to the powers of Nature." Again: "Notwithstanding all of our boasted improvements, patients suffer as much as they did forty years ago." And again: "The reason medicine has advanced so slowly, is because physicians have studied the writings of their predecessors instead of Nature."

The venerable Professor Jos. M. Smith, M. D., of the same school, testifies: "All medicines which enter the circulation, *poison the blood* in the same manner as do the poisons that produce disease." Again: "Drugs do not cure disease; disease is always cured by the *vis medicatrix naturæ*." And again: "Digitalis has *hurried thousands to the grave*." And yet again: "Prussic acid was once extensively used in the treatment of consumption, both in Europe and America; but its reputation is now lost. Thousands of patients were treated with it, but *not a case was benefitted*. On the contrary, *hundreds were hurried to the grave*."

Says Professor C. A. Gilman, M. D., of the same school: "Many of the chronic diseases of adults are caused by the *maltreatment* of infantile diseases." Again: "Blisters nearly always *produce death* when applied to children." Again: "I give mercury to children when I wish to *depress* the powers of life." And again: "The application of opium to the true skin of an infant is very likely to *produce death*." And yet again: "A single

drop of laudanum will often *destroy the life* of an infant.' And once more: "Four grains of calomel will often *kill an adult*." And, finally: "A mild mercurial course, and mildly *cutting a man's throat*, are synonymous terms."

"Physicians have learned that *more harm than good* has been done by the use of drugs in the treatment of measles, scarlatina and other self-limited diseases." And again: "My experience is, that croup *can't well be cured*; at least, the success of treatment is very doubtful. A different mode of treatment is introduced yearly, to be succeeded by another the next year." Once more: "Ten thousand times ten thousand methods have been tried, *in vain*, to cure diabetes." Still another: "In their zeal to do good, physicians have done much harm. They have hurried *many to the grave* who would have recovered if left to Nature." And, finally: "All of our curative agents are poisons; and, as a consequence, *every dose diminishes the patient's vitality*."

Says Professor W. Parker, M. D., of the same school: "I have *no confidence* in gonorrheal specifics." Again: "Nearly all cases of urethral stricture are *caused* by strong injections." And again: "The usual treatment of syphilis, by mercury, causes atheromatous deposits in the coats of the arteries *predisposing to apoplexy*." And yet again: "It must be confessed that the administration of remedies is conducted more in an *empirical* than in a rational manner." Once more: "The pains of which patients with secondary and tertiary syphilis complain are not referable to the syphilitic poison, but to the *mercury* with which they have been drugged." And, finally: "Of all sciences, medicine is the most uncertain."

Says Professor Horace Green, M. D., of the same

school: "The confidence you have in medicine will be dissipated by experience in treating diseases." Again: "Cod-liver oil has *no curative power* in tuberculosis."

Says Professor B. F. Barker, M. D., of the same school: "The drugs which are administered for the cure of scarlet fever and measles, *kill far more than those diseases do*. I have recently given *no medicine* in their treatment, and have had excellent success." Again: "I have known several ladies become *habitual drunkards*, the primary cause being a taste for stimulants, which was acquired in consequence of alcoholic drink being administered to them as medicine." And again: "I am inclined to think that mercury, given as an aplastic agent, does *far more harm than good*." Once more: "There is, I am sorry to say, as much empiricism *in the medical profession* as out of it." And, finally: "Instead of investigating for themselves, medical authors have *copied the errors of their* predecessors, and have thus retarded the progress of medical science, and perpetuated error."

Says Professor J. W. Carson, M. D., of the same school: "It is easy to destroy the life of an infant. This you will find when you enter practice. You will find that a slight scratch of the pen, which dictates a little too much of a remedy, *will snuff out the infant's life*; and when you next visit your patient, you will find that the child which you left cheerful a few hours previously, is *stiff and cold*. Beware, then, how you use your remedies!" Again: "We do not know whether our patients recover because we give medicine, or because Nature cures them. Perhaps *bread-pills* would cure as many as medicine."

No man was more distinguished as a medical philoso-

pher than Magendie, the celebrated French physiologist, and no one has been more severe in his denunciations of the profession to which he was attached by interest, as well as inclination. In his *Lectures on the Blood*, delivered at the College of France, he spoke with a fearless independence of his medical brethren, and applied to them the lash of censure with an unsparing hand. He says, "Medical men may be divided into two classes; those forming the first, give up all study the moment they leave off attending lectures; they quite conscientiously believe, and frequently succeed in persuading others that they understand every disease, and can cure every variety of suffering; these gentry occasionally realize a handsome fortune, but I must say they do it at the expense of science and of the interests of their fellow-men. * * * The second class of practitioners continue, it is true, to follow clinical pursuits with zeal, but some among them, misled by scholastic errors, retard rather than accelerate the progress of the science."

"I hesitate not to declare, no matter how sorely I shall wound our vanity," continues Magendie, "that so great is our ignorance of the real nature of the physiological disorders called diseases, that it would, perhaps, be better to do nothing, and resign the complaint we are called on to treat, to the resources of Nature, than to act as we are frequently compelled to do, without knowing the why or wherefore of our conduct, and at the obvious risk of hastening the end of the patient."

With regard to the practice of medicine, Magendie also observes, "the physician mixes, combines, and jumbles together vegetable, mineral, and animal substances; administers them right or wrong, without con-

sidering for a moment the cause of the disease, and without a single clear idea as to his conduct. You may prove to him, as you will, that this or that substance is insignificant, useless, or even hurtful; little will he regard your expostulations. And why should he, when, by readiness in prescribing a monstrous farrago of drugs, he knows he shall acquire the reputation of being profoundly versed in the materia medica, of being a man of immense resources." Speaking of the prescriptions of medical men, he says—"I care little for the learned prescriptions in which the majority of practitioners delight; the mysterious dignity of their composition always seems to me calculated to throw chaff in the eyes of the vulgar, and rather to enhance the merit of the physician, than really to effect the recovery of the patient."

The celebrated Dr. Brown, in the preface to his work entitled *Elementa Medicinæ Brunonis*, observes that he spent more than twenty years in learning, and diligently scrutinizing every part of medicine. The first five years passed away in hearing others, studying what he had heard, implicitly believing it, and entering upon the profession as a rich and valuable inheritance. His mode of employment the next five years was to explain more clearly the several particulars, to refine and give them a nicer polish. By the expiration of another five years, he became cold and indifferent to his studies; he began, with many other eminent men, to look upon the healing art as altogether *uncertain and incomprehensible*. "All this time passed away," says he, "without the acquisition of anything valuable in the healing art, and especially without that, which, of all things, is the most agreeable to the mind, the light of truth." He confesses that it was not until between the *fifteenth* and *twentieth*

year of his studies, that a slight gleam of light, which he compares to first dawn of day, broke in upon his benighted vision.

"He now began to see," says the author of the Philosophy of Medicine, "that he must give up the logic, the philosophy, and the facts of physic as it then prevailed; that he must forget all his reading and all his knowledge; and if he did not burn, as Paracelsus did, all the famous books that came in his way, he must shut them all, and seal each of them with seven seals, till he saw what he might make of his own thoughts."

Dr. Chapman, Professor of the Theory and Practice of Medicine in the University of Pennsylvania, seems to be somewhat skeptical with regard to the use of drugs. He says, "Tampering with medicines, (meaning of course *poisons*) is very detrimental. Every ache or discomfort, real or imaginary, must be relieved by a recurrence to some supposed remedy, till finally the powers of the stomach are worn out,—and derangements, either functional or structural, take place. It would be salutary were such people to bear in mind the epitaph of the Italian count, who fell a victim to this habit—

'I was well,
Wished to be better,
Took physic, and died.'

Nor can the profession escape the imputation of having contributed to this mischief. Called to a case of disease of such obscurity that no distinct notion can be formed of it, we go on groping in the dark, pouring down drugs empirically till the stomach gives way, and its *derangements are added to the pre-existing affection*, by which a case is made of greater complexity, and of enhanced difficulty of cure. It is not easy, always, to avoid this

course, from the ignorance or prejudice of mankind. The predominate estimate of the profession, even among the most enlightened people, leads to the delusive supposition that the *materia medica* has a remedy for every disease, and that the want of success, under any given circumstances, is owing to the poverty of resource of the practitioner in attendance. Confidence is soon withdrawn should he intermit his exertions, which perceiving, he too often multiplies his administrations, to avoid a dismissal, or to have imposed on him some one of the fraternity, who, it is expected, will bring forth fresh supplies. The consultation taking place, the new armory of weapons is opened and applied, with only an exasperation of the case. Not satisfied, however, further trials of others are made,—there is a repetition of a similar proceeding, and the catastrophe is complete.

“This, which might by some be suspected as a sketch of fancy, is a faithful and unexaggerated delineation of reality I have frequently seen and deplored. Convinced that he was falling a victim to this practice, the Emperor Hadrian deliberately prepared as an inscription for his tomb—

‘It was the multitude of physicians that killed the Emperor!’”

In his *Therapeutics*, Dr. Chapman observes, “Certainly the annals of medicine, already sufficiently crowded and deformed with the abortions of theory, ought to moderate our ardor, and create in future, some degree of restraint and circumspection.”

“Nowhere is the imagination displayed to greater extent; and perhaps, says an eloquent writer, so ample an exhibition of the resources of human invention might satisfy our vanity, if it were not more than counter-

balanced by the humiliating view of so much absurdity, contradiction and falsehood."

John Lizars, Fellow of the Royal College of Surgeons, and Lecturer on Anatomy and Physiology in Edinburgh, makes the following remarks on the present state of the old school practice of physic: "Let anyone read the medical journals, or investigate the reports of the hospitals, and reconcile to his feelings the fatal blunders which are daily committed both by physicians and surgeons. How many are treated for colic, and die of inflammation of the bowels? How many are treated for low nervous fever or typhus, and die of acute inflammation? How many are tortured on the operating table for stone in the bladder, or for aneurism (enlargement of an artery), and die on the same or following day of hemorrhage, or inflammation produced by the unhallowed hands of the surgeon?

" 'Enter his chamber, view his breathless corpse,
And comment then upon his sudden death.'

"The next question," he says, "which may naturally be asked, is, does the same lamentable evil exist in private practice? And the answer is as naturally,—undoubtedly it does. This very day I have operated on a gentleman for fistula in perineo, whose urethra was destroyed by one of the medical practitioners of the county attempting to introduce the catheter about three years ago. I have been obliged to lay the urethra open from the bulb to the bladder; or, rather, I have been compelled to make a new urethra, for every vestige of the former one was obliterated by sinuses, and I here candidly confess that all the operations for puncturing the bladder which I have performed, and these have not been few, have been

in consequence of practitioners injuring the urinary canal by the introduction of the catheter."

Dr. Good says, "The science of medicine is a barbarous jargon, and the effects of our medicine on the human system are in the highest degree uncertain, except, indeed, that they have already destroyed more lives than war, pestilence and famine combined."

Dr. Hall says, "I may observe that of the whole number of fatal cases of disease in infancy, a great proportion occur from the inappropriate or undue application of exhausting remedies. This observation may have a salutary effect in checking the ardor of many young practitioners, who are apt to think that if they have only purged, and given medicine enough, they have done their duty; when, in fact, in subduing a former, they have excited a new disease, which they have not understood, and which has led to the fatal result."

Dr. Abercrombie says, "We own our system defective, and the action of our remedies in the highest degree uncertain."

Dr. Benjamin Waterhouse, who, after lecturing for more than twenty years in the medical department of the Harvard University, retired, saying, "I AM SICK OF LEARNED QUACKERY!" As specimens of this *quackery*, I will make a few extracts from standard works, in relation to the treatment of particular forms of disease; and medical men will have no reason to charge me with unfairness, if I seek to condemn them by their own testimony. I merely wish to satisfy the public that their works are full of speculations and discrepancies, and, of course, that their practice cannot be any other than visionary and uncertain.

Magendie, speaking of consumption, in his lectures

on the blood, exclaimed, "Look at consumption! there is an affection which you see day after day cutting off individuals of every age, sex and rank, yet none has been more carefully studied on the old plan, none has proved a more fruitful source of dogma and disquisition. Eminent observers have described all its phenomena, even to the minutest details; but what is all this description but so much natural history? Will it throw any light on the treatment of the affection? Not a particle."

"DROPSY OF THE BRAIN in children," observed Dr. Ware of Harvard University, to his class, "is so generally fatal, that medical treatment is not thought to be of any avail. We are justified in such cases in trying experiments, until time shall develop a mode of cure; but I know of no experiments yet that have proved successful."

Dr. Mackintosh, in his remarks on dyspepsia, says: "Remedies have not the same effect in any two cases; and all plans of treatment will most generally fail, unless the patient himself can discover what articles of food agree with him better than others, and has resolution enough to adhere to a proper regimen."

Dr. Francis of New York, says: "However various may be the methods of cure in scarlet fever adopted by different physicians, all admit the serious character of the disease, and its too often fatal termination."

Dr. Fuller of Rhode Island, in a prize address on scarlet fever, makes the following quotation from Dr. Armstrong: "It ought to be noticed that most of the old authors are for, and most of the latter against, depletion, in the malignant forms of scarlet fever; so various are the records of human opinion, even on matters of vital importance. The theories of medical men are

constantly changing, but diseases have always been under the same influences, as the planets revolve by the same laws, whatever conjectures were formed of them in the lapse of ages. The opinions of men may vary, but the operations of Nature are unchangeable."

Dr. Fuller, in the course of his remarks, observes that "early in his professional career he followed the practice so constantly and so fatally recommended by almost all writers of the last half century, who considered scarlatina to be a putrid disease, requiring the employment of bark, wine and other cordials for its cure." He adds that "most writers of the last half of the eighteenth century recommended bark, combined with stimulants, as their sheet anchor in scarlatina;" but he says, "the very idea is preposterous, and he knows of no circumstances which should induce him to employ bark, or any of its preparations, during the two first stages of this highly inflammatory disease."

Somebody must be in error here, but who we will leave for others to decide. The inference is plain, however, that thousands and tens of thousands have been sacrificed by this "fatal" practice within the last fifty years; and yet the world seems to be either ignorant or regardless of these fearful enormities, which have been perpetrated in the name of *science*, and under the protection of the law.

Dr. Mackintosh, in his remarks on scrofula, observes: "I was once very much amazed on hearing the answer given by a physician in my presence, to a lady who was desirous of knowing how long her little girl, afflicted with this disease, was to be compelled to take the solution of muriate of lime. She stated that it was very nauseous, and that it had done the child no good,

although she had taken it regularly for *six months*. The physician replied that it would probably require *three or four years* before it would produce any beneficial effects, and that it must be regularly taken. Whether the physician spoke believing what he said to be true I cannot pretend to say, but he looked *grave enough*."

We do not often find medical men taking their own drugs when they are indisposed ; and in many instances they manifest a reluctance in giving them to their patients. This is what I call *medical skepticism* ; and it prevails to a much greater extent than is generally imagined.

Dr. Pierson, of Massachusetts, in a memoir of his fellow-townsmen, Dr. Cleaveland, who died some years ago, at the advanced age of eighty years, says that the deceased "to the end of his life—in opposition to the opinions and wishes of friends and of physicians—declined almost entirely the use of those *narcotics* which would have relieved his pain, lest they should *deaden his moral and intellectual sensibilities*."

The above is some proof of our assertion that physicians are afraid of their own drugs. With regard to Dr. Cleaveland, however, there is no doubt that he often gave *narcotics* to his patients, little caring, perhaps, how much he deadened *their* moral and intellectual sensibilities ; and the question arises, whether, by the use of these stupefying agents, individuals are not frequently sent from time to eternity.

Dr. Warren, professor of Anatomy and Surgery in Harvard University, made the following remarks in one of his lectures. "As I was walking in the street about a year ago, I felt a sudden pain in the back part of my leg, which prevented me in some measure from walking.

The pain was seated in one of the nerves, and was rather obstinate. There were two remedies which I could employ, either a dose of laudanum, or a long walk. I preferred the latter, and it afforded me the desired relief."

Whether Dr. Warren, if he were called to a patient similarly afflicted, would recommend the poison of opium, or a little wholesome exercise, I am unable to determine.

Says Professor E. S. Carr, M. D., of the New York University Medical School: "All drugs are more or less adulterated; and as not more than one physician in a hundred has sufficient knowledge in chemistry to detect impurities, the physician seldom knows just how much of a remedy he is prescribing." Again: "Mercury, when administered in any form, is taken into the circulation, and carried to every tissue of the body. The effects of mercury are not for a day, but *for all time*. It often lodges in the bones, occasionally causing pain *years after it is administered*. I have often detected metallic mercury in the bones of patients who had been treated with this *subtile poisonous agent*."

Says Professor S. St. John, M. D., of the same school: "All medicines are *poisonous*."

"The science of medicine is *founded* on conjecture, and *improved* by murder."—*Sir Astley Cooper*.

"There is scarcely a more dishonest trade imaginable than medicine in its present state. The monarch who would entirely interdict the practice of medicine would deserve to be placed by the side of the most illustrious characters who have ever conferred benefits on mankind."—*Dr. Forth*.

"The whole art of physic might be written on a single

sheet of paper. When I commenced practice, I had twenty remedies for every disease ; but before I got through, I found twenty diseases for which I had no remedy."—*Dr. Radcliffe.*

"The medical practice of our day is, at the best, a most *uncertain* and unsatisfactory system ; it has *neither philosophy nor common sense* to commend it to confidence."—*Professor Evans, Fellow of the Royal College, London.*

"Gentlemen, ninety-nine out of every hundred medical facts are *medical lies* ; and medical doctrines are, for the most part, *stark, staring nonsense.*"—*Professor Gregory, of Edinburgh, Scotland.*

"It cannot be denied that the present system of medicine is a *burning shame* to its professors, if, indeed, a series of vague and uncertain incongruities deserves to be called by that name. How rarely do our medicines do good ! How often do they make our patients *really worse !* I fearlessly assert that in most cases the sufferer would be *safer without a physician* than with one. I have seen enough of the *malpractice* of my professional brethren to warrant the strong language I employ."—*Dr. Ramage, Fellow of the Royal College, London.*

"Assuredly the uncertain and most unsatisfactory art that we call medical science, is *no science at all*, but a jumble of inconsistent opinions ; of conclusions hastily and often incorrectly drawn ; of facts misunderstood or perverted ; of comparisons without analogy, of hypotheses without reason, and theories not only useless, but *dangerous.*"—*Dublin Medical Journal.*

"Thousands are annually *slaughtered* in the quiet sick-room. Governments should at once either banish medical men, and proscribe their *blundering art*, or they

should adopt some better means to protect the lives of the people than at present prevail, when they look far less after the practice of this *dangerous profession*, and the *murders* committed in it, than after the lowest trades."—*Dr. Frank, an eminent European author and practitioner.*

"I wish not to detract from the exalted profession to which I have the honor to belong, and which includes many of my warmest and most valued friends; yet it cannot answer to my conscience to withhold the acknowledgement of my firm belief, that the medical profession (with its prevailing mode of practice) is productive of *vastly more evil than good*; and were it absolutely abolished, mankind would be *infinitely the gainer*."—*Francis Cogswell, M. D., of Boston.*

"The science of medicine is a *barbarous jargon*, and the effects of our medicines on the human system in the highest degree *uncertain*, except, indeed, that they have *destroyed more lives* than war, pestilence and famine combined."—*John Mason Good, M. D., F. R. S., author of "Book of Nature," "A System of Nosology," "Study of Medicine," etc.*

A highly intellectual lady was attacked with hemorrhage from the lungs, which ceased without the interposition of medical aid. Fearing she was threatened with pulmonary consumption, she consulted an eminent old school physician, and he advised her, very much to her astonishment, not to take any medicine, for, said he, anything that we physicians could prescribe would cause derangement of your stomach, and thereby sympathetically affect your lungs.

Here was a species of skepticism not uncommon among physicians; and if their drugs affect the stomach

injuriously in consumption, and give rise to a new train of morbid symptoms, I ask whether they have not a similar tendency in every other form of disease.

As a further history of her case, the lady laughingly remarked that although this doctor had advised her not to employ *medicine*, as he used the term, another physician almost equally distinguished, told her that it was indispensable, and would be the only means of saving her life.

There is something in the operation of a poison on the human system, though it may be given in small doses, which suggests to the intelligent physician the danger, or at least the impropriety, of employing such an agent; but as he has been educated to believe that nothing excepting a poison can exercise any medicinal influence, he finds it almost impossible to relinquish his preconceived notions. Thus it is that reform in medicine is so tardy in its progress.

I have observed that medical students are generally skeptics during the first course of lectures they attend, but in proportion as they become familiarized with their dreadful trade, their skepticism dies away, and they fancy that they can cure any disease with opium, calomel, cocaine, eucane, prussic acid, antifebrine, antipyrine, aconite, iron, quinine and a few other drugs.

Pliny informs us that Rome was five hundred years without physicians. Her rulers forbade the practice of medicine and banished its professors. Would they have done this, but that they saw the ill effects of medical treatment? Would they have banished those who were really skilled in the healing art, and were capable of alleviating or curing disease? On the contrary, when Archagathus, a Peloponnesian, first estab-

lished himself in Rome as a medical practitioner, he was treated with great respect by the citizens and was even maintained at the public's expense; but his practice proved to be so severe and unsuccessful, that he soon excited the dislike of the people, and produced a complete disgust to the medical profession, which led to the banishment of himself and brethren.

Without wishing to be unjust to the physicians of our own times, it appears to me that they are quite as worthy of banishment as those who were driven from Rome *twenty centuries* ago, for that was the period at which the event took place. To be satisfied of the horrible effects of their practice, we have only to glance over the pages of history, and observe how many distinguished individuals have been its unsuspecting victims. Washington, for instance, after having fought the battles of his country unharmed, was killed, according to the best authority, by his physicians. Byron, also, England's noblest poet, met with a similar fate; and I might mention President Garfield, and a host of others, equally distinguished for their genius and virtues, who paid the forfeit of their lives by obeying the injunctions of their medical attendants.

The public generally has no idea of the number of people who are destroyed by the regular practitioners. Dr. Alcott, in the first number of his *Health Tracts*, observes: "An intelligent professor in one of our western colleges, thinks that each young physician kills, upon the average, about twenty persons, before he is fairly initiated into his profession."

There is more philosophy than poetry in the assertion of Dr. Thomson, that we cannot *cure a sick man* by the same means we would employ to *kill a well beast*.

Such being the deliberate assertions, declarations,

and confessions of those who advocate, teach and practice the drug system, let us see next what they say of the system which I advocate, and which they oppose:

Says Professor Parker: "As we place more confidence in Nature, and less in preparations of the apothecary, *mortality diminishes.*" Again: "Hygiene is of *far more value* in the treatment of disease than drugs." And again: "I wish the *materia medica* was in Guinea, and that you would study *materia alimentaria.*" And yet again: "You are taught learnedly about *materia medica*, and but little about diet." Once more: "We will have *less mortality* when people eat to live." And, finally: "I have cured granulations of the eyes, in chronic conjunctivitis, by hygienic treatment, after all kinds of drug applications had failed."

Says Professor Clark: "Pure cold air is the *best tonic* the patient can take." Again: "Many different plans have been tried for the cure of consumption, but the result of all has been unsatisfactory. We are not acquainted with any agents that will cure consumption. *We must rely on hygiene.*" And again: "*Cream is far better* for tubercular patients than cod-liver oil, or any other kind of oil." And yet again: "In scarlet fever you have nothing to *rely on* but the *vis medicatrix naturæ.*" Once more: "A hundred different and unsuccessful plans have been tried for the cure of cholera. I think I shall leave my patients, hereafter, nearly entirely to Nature; as I have seen patients abandoned to die and left to Nature recover, while patients who were treated died." And, finally: "A sponge-bath will often *do more to quiet* restless, feverish patients than an anodyne."

Says Professor Barker: "The more *simple* the treatment in infantile diseases, the *better the result.*"

Says Professor Peaslee: "Water constitutes about eight-tenths of the weight of the human body, and is its *most* indispensable constituent." Again: "Water is the only necessary—the only natural drink."

Says Professor Gilman: "Every season has its fashionable remedy for consumption; but hygienic treatment is of *far more value* than all drugs combined." Again: "Cold affusion is the *best antidote* for narcotic poisoning. If the medical profession were to learn and appreciate this fact (why don't they learn it?), the number of deaths from narcotism would be diminished one-half." And again: "The continued application of cold water has more power to *prevent inflammation* than any other remedy." And yet again: "The application of water to the external surface of the abdomen, is of *great importance and value* in the treatment of dysentery. I have also *cured* adults by this means alone." Once more: "Water is equal in efficacy, as a diuretic, to *all other* diuretics combined. Water is the thing that produces diuresis; all other means are subordinate." And, finally: "Water is the *best febrifuge* we have."

Says Professor Smith: "The vapor of warm water is the *most efficacious expectorant* we have." Again: "Abstinence from food is one of the *most powerful anti-phlogistic* means."

"The principles of the water-cure treatment are founded in Nature and truth. We have in our power a new and most efficacious agent for the alleviation and cure of disease in various forms, and, in proper hands, as safe as it is effectual. I should be no friend to humanity, nor to medical science, if I did not give my testimony in its recommendation."—*Sir Charles Scudamore, M. D., F. R. S.*

"It (hydropathy) more than doubles our power of doing good. Of course it will meet with much opposition, but none, come from what quarter it may, can possibly prevent its progress and its taking firm root. It is like truth, not to be subverted."—*Herbert Mayo, M. D., Senior Surgeon of the Middlesex Hospital.*

"Its paramount virtue is that of preserving many a constitution from pulmonary consumption."—*Dr. James Johnson, Editor of the Medical Quarterly.*

"The Natural-cure is founded on a rock; and the wind and waves of persecution will in vain assail it."—*Dr. Balbirnie.*

George Dutton, A. B., M. D., Dean of the American Health University, in a letter to my son, says: "My opinion is that nine-tenths of what is taught in medical colleges had better not be taught, and the other tenth better taught. We have too many physicians as they now are, and not enough as they should be. Drugs often kill, but rarely if ever cure."

Prof. Kingsley, instructor in modern and scientific methods of cure, with The National Institute, Masonic Temple, Chicago, says: "The experience of physicians of all schools, as given in numerous cases to the writer, is that in effecting cures, it does not matter what drug is given (providing it is harmless), if only the patient has confidence in the remedy, and gets pure air, right food and exercise."

The argument might be profitably continued to a great length, but space demands that I forbear. Any mind of common capacity will by this time see on which side of the question his real interests are involved. It seems to us that the crowning disgrace of the medical profession consists in their ignorance of the processes of Nature, as

exemplified in the most patent laws of physiology, hence the incongruity of their classifying substances as food in certain instances and as poison in others. *Poisons* may be defined as substances *incapable* of *assimilation* by the system, and, therefore, non-nutritial. Food, on the other hand, *nourishes* and *supports* vitality. All substances which are not food, are *foreign* matters in the system, causing *injurious* and *debilitating* effects, owing to the efforts made by the organism to get rid of their *unnatural* presence. Such substances are therefore opposed to, and inconsistent with, any rational therapeutic system; the aim of which should be to *strengthen* vitality, *not* to *debilitate* it.

The great fact is this, that vomiting, purging, perspiration, &c., when induced by the presence of some irritating or poisonous matter in the system, are the *acts* of the *vital economy* itself, and not of the *drug*, which induces them; that they are acts of warfare against an enemy, carried on by the system in self-defence, and accordingly debilitating and exhausting to it.

CHAPTER IX.

NATURAL PRINCIPLES OF CURE, OR CURE WITHOUT DRUGS.

AMONG the common people, the wide distinction between Prevention and Cure has not been generally recognized. They are apt to think that all books, relating to the laws of life and health, must of course be treatises on diseases and cures by drugs. They are, at least, often more eager to obtain reading matter in some contemptible quack-doctor book, which professes to teach them how to doctor themselves, than they are to get books to show how they destroy health and life, and how to prevent disease, broken constitutions, and premature death. They regard *Cure* infinitely more important than *Prevention*. As a general rule, they more highly value a physician who, instead of warning them against the evils of violated law, will let them go on unmolested till they have ruined themselves, and then will be on hand to drug them thoroughly, even unto death, than they will that man who has the moral courage, in the cause of humanity, to peril his reputation to prevent them from encountering needless suffering and an early grave.

They want their false appetites and ruinous indulgences to be let alone; and, when health is gone as a consequence, they want a doctor, or doctor book, to prescribe drugs, which *promise* to restore health, in spite of their continuing the indulgence which caused it. Or, if they set aside the cause for a short space, they want

to be so thoroughly drugged that Nature may never dare make such another outcry, so that they may return to their sins with hopeful impunity. At all events, they consider health a secondary matter—a matter comparatively of small importance until it is ruined, and then mourn over their pains and sufferings, when it is too late to make amends. They practically consider the old proverb to be obsolete, “An ounce of prevention is worth more than a pound of cure.” They go on with their unnatural indulgences, undermining their physical vitality, until Nature, unable to bear abuse any longer, gives signs of woe; then they resort, perhaps, to cures which only cure by death. The first step toward the cure of diseases is effected by removing causes.

Unless the original cause of any given disease be removed, there is no successful way of obtaining a permanent cure; and by the removal of the original cause, perhaps in more than nine cases out of ten, Nature will remove the difficulty without the aid of any kind of medicine. It is the most consummate quackery to prescribe medicine to cure a disease, while the cause that produced it is not abandoned. If a liver complaint, or kidney complaint, or any other glandular derangement exists, which has been produced by tobacco, coffee, tea, or any other narcotic or stimulant, it is an outrage on common sense, as well as science, to prescribe remedies while indulgence in these false luxuries is continued. They must be abandoned, or health given up; and it is folly to inquire which should be relinquished, for they are all hurtful, and should be rejected.

Here comes a lady with prostrated nervous system; and from this arises a diversity of complaints,—dyspepsia in its various forms and its hundreds of attendant

sufferings, sick headaches and nervous headaches, with their periodical visits gone to the stomach and palpitation of the heart;—any and all of these, and many more, have grown out of the long-continued use of stimulating drinks. Her dear wicked luxuries of coffee and teas,—especially the teas,—by their intoxicating power on the nerves, have gradually and imperceptibly worn out their healthy tone; they are now in a morbid and irritable state, laying a broad foundation for ill health in a variety of forms. If her liver is the point to which her illegal living has directed its force, and her immediate sufferings arise from a torpid condition of that gland, accompanied with its usual attendant, a sluggish condition of bowels, she seeks some nostrum in the form of anti-bilious pills, or other quackery. She takes the pills, which force a temporary action that is generally followed by greater prostration of nervous force, giving the liver greater torpidity, and still continues her luxuries of coffee and tea.

This is like a man holding his hand in the fire till the skin is removed, calling on the doctor for a salve, while he is still holding his hand in the flame. If he wants the burned skin to be removed and a new one to take its place, he must take the hand out of the fire; he must put away the original cause. When he will do this, Nature will want little help to bring things again to their right bearings. But if he continues the cause, he may tax the skill of the whole medical world, and find no relief. If he will continue to violate law, he must take the consequences. But if he will cease rebelling against Nature, put away his weapons of warfare, desist from destroying her vital forces, and let her have her own way, she will put forth her very best efforts to set everything right. Nature

always goes for health; and so zealous is she in her undertakings, and so certain of the best possible issue, that we may rest assured that on her part no pains will be spared, and on our part no risk is run.

As before remarked, probably in nine cases out of ten of all the diseases in the world, especially those of chronic form, when the primary cause is removed, Nature requires no help from medicinal agents, and will perform her work of cure better without than with them. Medicines do harm instead of good; for all medicinal agents are unnatural to the laws of healthy life. The philosophy of cure with medicines consists in creating an unnatural condition of the animal economy, in opposition to the existing one. A morbid condition now exists; another morbid condition is instituted in order to overcome and expel it. And if the medicine succeed in removing it, still Nature must remove the unnatural condition produced by the medicine; and if Nature alone can remove any existing disease by having its cause put away, she will come out better in the end, than she will if two morbid conditions, instead of one, are thrown in her way.

The medical profession has been deficient in attention to the laws which belong to health. They study Pathology, or the laws which govern diseased life, but, do not, as a general rule, direct sufficient attention to laws which govern healthy life. Hygienists and Hydropathists give much attention to this subject. If a man comes to them for medical aid, they look into the history of the case. They inquire into his habits of eating and drinking; carefully note all his physical errors, and proscribe everything which is in conflict with the laws of health. In this way they put their patients upon the

resources of Nature. While they are not drugging the patients to death, they are giving the powers of Nature an opportunity to exert their healing forces; and this fact probably forms the principal basis of their success. Nature gets a chance to put forth healing energies, which drugging prevents.

Cases have often come under observation where persons affected with chronic diseases have been taking drugs prescribed by their physician, while at the same time they were indulging unnatural appetites in sufficient degree to account for all the attendant morbid symptoms. Several cases of prostrated health, from the use of tobacco, have fallen under notice, where several members of the faculty have been consulted, each recommending his remedies, but not one of them so much as intimating that tobacco possessed deadly properties. Even those who have noticed its deadly effects at all, have generally only half-condemned the practice, and merely recommended the lessening of the quantity, instead of entire and eternal abstinence from it. The prescribing of medicine to cure a disease which is the product of an unnatural habit unrelinquished, is of all kinds of quackery in the world the most enormous and inexcusable.

More than nineteen-twentieths, probably, of all the diseases of which complaint is made, are created, directly or indirectly, by the people who suffer from them; and, as a general rule, if they will cease creating the disturbance, Nature will recover herself better without medicines than with them. A portion of their diseases they create directly, by interference with natural law, without any other agency. Another portion of diseases is created indirectly. There are morbid con-

ditions of the atmosphere, and also contagions, which cannot always be wholly avoided ; but, as a very general rule, these would touch us lightly, if at all, if we would not, by impairing the tone of natural vitality, open the door of the "house we live in," and invite them in. As fearful as are the ravages of the cholera, it is comparatively little to be feared, if we will continually pay obedience to all the laws of organic life. But if we will abuse the powers of our own vitality, we may expect cholera, or any other epidemic or contagious disease, to walk in and take such a possession as may prove fatal.

The great majority of fatal cases of cholera were made so by the intemperance of its victims. Many who used no spirituous liquors, used tobacco. Many who used no tobacco, had destroyed the equilibrium of their electric forces, circulating in the nervous system, by strong teas and coffees. Perhaps they had eaten luncheons and late suppers, or had taken largely of meats and condiments.

If we take such a natural course of habitual living as to secure a healthy and evenbalanced circulation of the blood, and especially of the electric currents of the body, we shall be in comparatively little danger from hurtful atmospheric influences. Neither cholera or any other morbid agency can find much chance to pray upon us. But if we derange the functions of our organism, though we may seem to do so with impunity to-day, yet to-morrow other destructive causes may enter with deadly weapons.

Hence, we can see, if those who are suffering ill-health will read and inform themselves on the natural laws of healthy life, and cease violating them altogether, Nature

will generally perform a cure. If we create a majority of all our diseases by intemperate habits, we certainly can quit those habits and let the system recover itself. Seeking for remedies short of this, is the very worst of folly. It is spending time and money to no purpose, and wasting the vital energies by medicines which, when they cannot effect good, are only increasing disease and hastening premature death. If, instead of resorting to the doctor's patent medicines, quack-doctor books, drug-stores, etc., men would see that all violations of natural law were put away, so that no embarrassment should oppress Nature, they would not only save themselves from a vast waste of money, but from many a ruined constitution and loss of life, which silver and gold cannot replace.

Oh, what consummate fools some people are! If we recommend them a book on the laws of health, they will call it quackery, a catch-penny or a humbug. Or, if we tell them at the bedside, that all they really need is abstinence from disobedience to some law of health—that they do not need drugs—they will think us ignoramuses, and probably send for some doctor so destitute of skill or of honesty, that he will abundantly gratify them with medicines. The efforts of an honest man they cannot appreciate; but the man who will furnish them with a doctor book, promising to show them how to cure themselves with medicines—the man who will really humbug for money—they will regard as a benefactor to the race. The man who will make a display of powders and drops, which are only preparing them to drop into the grave, is at once reckoned one of the most skillful doctors of the age.

The man who has not moral courage enough to repel

the temptations which such ignorance furnishes, is not fit for the profession. The man who will seek a reputation at the peril of community, has not that degree of honesty which could prepare him for a station of such responsibility. He is obtaining money under false pretenses, and even bartering the life that has been intrusted to his hands for paltry gain. Nay, he is worse than a highway-robber and murderer. He meets you not in the bold, frank attitude of his real character, as does the highwayman, letting you understand at once your danger and need of preparation for defence, but comes to you in the meanest hypocrisy, pretending to be devoted to the cause of humanity and the relief of human suffering, while he is willing to let you go on in your course of self-destruction; and then, instead of seeking to show you wherein you have departed from Nature's path, and turn you back into it again, will deal out needless drugs, for money and a reputation, which push you into the grave.

Considering the ignorance of the people and their fondness for drugs—the abundance of quackery and the contingencies attending the administration of all medicinal agents—the increased indifference of the people toward the laws of health because there are plenty of doctors and medicines at hand—it is pretty safe to conclude that the standard of health and longevity would be far above its present position, if no medicines had ever been known in the land, and not a physician had ever set foot upon its soil. The existence of medicines and physicians will probably continue to do more harm than good, until the friends of humanity will take more interest in diffusing among the people a knowledge of the laws of the human system which relate to practical

life, and the people themselves shall wake up to their own highest earthly interests in this matter, and those of their rising posterity.

The second step toward the cure of disease is effected by temporary abstinence.

As a general rule, keep the stomach in right action, and the whole system will be right. This organ is very much exposed to hurtful influences, some of which cannot always be avoided. Although, as a very general rule—a rule with few exceptions—its maladies can be avoided by a knowledge of its peculiar functions and laws, yet it may possibly, by the strictest care, become deranged, and the whole system be put into liability to suffering. Its lining membrane may be coated with a viscid mucous secretion, or its nervous tone may be temporarily prostrated, so that a healthy appetite may be gone, and the whole system brought under some form of fever. If, on the approach of the disturbance, abstinence from ordinary food be rigidly adhered to for a day or two, the stomach may free itself from its causes of oppression. If, instead of resorting to emetics and cathartics, as is frequently done, the person effected would cease all ordinary eating, and live on mere Indian gruel, till the stomach could have time to clear itself from its mucous coating, or gather up its electric vigor, the whole difficulty might come to an end; a protracted sickness, severe drugging, a large bill, and perhaps a premature grave, might be avoided.

A popular idea exists that when the stomach gets deranged, the bile has entered it, and must be dislodged. Hence, they will take emetics, throw up bile in the course of vomiting, and thus seem to prove their notions correct. Whereas, the bile rarely comes up hill into

the stomach except by the effort of vomiting. The bile they see is brought up from below, from the second stomach, or duodenum, by the severe reverted action of the stomach, calling into its sympathy its associated organs. The stomach would not much better bear bile introduced into it, without vomiting, than it would bear a decoction of tobacco on its first introduction. It would set up rebellion against it, and throw it off with almost as much earnestness as it would against a solution of tartar emetic.

Whenever the stomach has lost its tone or become oppressed by wrong eating, the only cure that can suffice consists in temporary absence from food. Hundreds and thousands have sick headache, nervous headache, heartburn, sour stomach, and other ailments which are, if not caused, greatly enhanced by bolting down the food without stopping to masticate it; and the poor foolish sufferers will swallow quarts of pills, neutralizing salts, emetics, syrups, and a host of other things, in hope of cure; and they make about the same progress that a man would to drink himself drunk every day, and sleep himself sober every night. As long as they will swallow their food whole, they may expect to suffer. When they will cease insulting their stomachs by their swinish eating, they will find, by short fasting, that organ will regain its strength.

But fast eating is not the only promoter of gastric disturbance. The taking of condiments is a crime against the stomach. Instead of leaving that organ free to carry on its own vital functions, they throw in pepper, salt, ginger, spice and mustard. All these are as truly destructive to its tone and healthy action as is alcohol. They produce unnatural excitement, and weaken natural

strength. If stomach complaints are produced by these unnatural and unnecessary agents, and a cure is desired, let these things be discontinued at once, and fast until Nature can perform a cure.

Vast disturbance is the direct effect of various stimulants. There are many suffering from various forms of dyspepsia and its often accompaniment, consumptive cough, which has been, to say the least, greatly increased by stimulating drinks. They have created great fondness for their favorites, coffee and tea. They love their intoxicating power, as truly as the drunkard loves his liquors, and for precisely the same reason: because they spur up Nature—quicken a mind that is drooping under the reaction of a former excitement—produce a cheering sensation on the jaded nervous system. Tell them about abandoning such a habit, and, as in the case of the rum or tobacco slave, you might sooner succeed in persuading them to abandon the Christian faith. They will be found more firmly wedded to this worldly lust than they are to a healthy body, a sound mind, or a sanctified heart. An unnatural animal passion rules the day, over better judgment, reason, conscience, and all the higher powers of Nature. Health, with all its attendant blessings, is worth something, but their gratified passion is valued more.

But they cannot have this and health too, after symptoms of suffering show themselves. They must be content to suffer on, or put away their idol appetites. The best cure for periodical or protracted headache, is ceasing to create or foster the complaint. The best drops for consumptive cough consists in dropping the foolish habits which produce it, or keep it in existence, and properly exercising and developing the lungs by the aid of system-

atic and deep breathing. Let them cease destroying the tone of the nervous system, from which arise a host of complaints, and these complaints will soon disappear. While this portion of our being is kept in tune, there is but little danger of much derangement. But get this out of tune, and there is scarcely any trouble that may not arise. Treat the nervous system right, and Nature will then be able, not only to ward off outward causes, but to cure those which have originated in her own abused and weakened powers. And when medical men in general shall study out primary and original causes, and proscribe them, as carefully as they now study immediate symptoms and the *modus operandi* of drugs, they may be able to save many a patient which they now hurry into the grave.

Where liver complaint, kidney complaint, or any other glandular disease, is the product of tobacco, or other stimulant, the question comes, which is to be valued most, a healthy, sound body, or the needless, harmful vice?

Nightmare is a frequent complaint of tobacco-users. It so paralyzes the nerves of involuntary motion, that the lungs cease to operate, and death during the hours of sleep often ensues. The electric forces cease to circulate, and nightmare, and sometimes death occurs. Palpitation of the heart is another common complaint among tobacco-users, originating in a derangement of the nervous forces. What in these cases must be the mode of cure? Shall we give drugs, or put away drugging?

Every medical man knows what ought to be done, but will he do it? Will he search out the predisposing, and, it may be, the exciting cause, and insist on its removal? It may be he too is guilty of this ungodly practice.

Disease from any cause is increased by an impaired state of the nervous system. And if we would have Nature seek a cure, we must not only abandon its cause, but abstain from every other violation of her laws, that she may be in the best possible state to war with disease.

In all cases of disease from a humor in the circulating fluids, in order to obtain a cure, there must be abstinence from everything that can have any influence in producing it, or keeping it alive. Every habit which may be guilty in the first degree, or which may aid and abet—everything operating principally or incidentally as a cause,—must be suspended. Meat-eating—especially the eating of fat meats—tends to produce a morbid state of the fluids. And in every case of humor of any kind, meats should be set aside, at least until Nature has had time to cleanse the fluids of the system. If the meats have probably been the original cause, they should be dismissed forever. If they only increase the difficulty, or if they only hinder the restorative energies of the system, they should be set aside at least a sufficient time to let the system cleanse itself from this morbid condition. A diet principally of fruits, cereals and vegetables in the simplest form—not by starvation, but in moderation—will greatly facilitate a cure.

All derangements of health which are increased by, or grow out of, an impaired tone of the nervous system, are dependent for cure on the abstinence from everything that produces excitement and irritability of that system. In all cases of dyspepsia, periodical headache, palpitation of the heart, nervous prostration, and general debility, there should be total abstinence from all stimulating drinks and irritating condiments. If the coffees, teas, and condiments, which have increased, if not wholly

produced the disease, be continued, no cure can, of course, be reasonably or possibly expected.

Indeed, whatever may be the kind of ill-health suffered, there should be a careful search made to see whether there are any violations of natural law, directly or indirectly, affecting the nervous system. For in all cases, a single violation will retard, if not prevent a cure. Treat Nature right in all respects, and she will abundantly reward the effort, by her very best exertion to restore and maintain health.

In all cases of mental derangement, the same rule should be adopted. Depression of spirits and melancholy are generally increased, if not wholly produced, by unnatural stimulants on the nervous system. Whether produced by them or not, no cure can well be obtained without abstinence from them. Let the nerves be in an undisturbed and healthy condition, and Nature will make successful war against almost any disease that attacks the system, whether it is purely physical, or physico-mental. It has grieved me much to find that, as a general rule, stimulating drinks are allowed the inmates of insane asylums. Insanity is emphatically a disease of the nervous system. Every drop, therefore, of tea or coffee should be strictly prohibited. Cool, nourishing drinks, and simple, generous food, should be the living of those afflicted with this malady. Abstinence from meat, also, is important. Meats are too stimulating to be used in such cases.

A third step toward the cure of disease is effected by systematic discipline.

Lung affections are very much under the control of discipline. A contracted chest, whether hereditary, or produced after birth, is a general precursor and accom-

paniment of consumption. This difficulty can be greatly, if not entirely, removed. A contracted chest can be expanded. Indeed, we may almost make our own lungs. When the chest is deficient in space, the lungs are compressed and irritated; and they are unable to inspire as much air as is necessary to properly oxydize the blood and prepare it for arterial circulation. When the blood which comes into the heart from the veins, is thrown from the heart into the lungs, it contains a surplus of carbon—the basis of charcoal. Here it comes in contact with the air inhaled by the lungs, takes a portion of oxygen from the atmosphere, and gives off its excess of carbon. Here, then, the blood, by becoming oxygenized and decarbonized, changes its color; and, returning to the heart, it is carried to every part of the system to supply its nutrition. It is then returned again through the veins, to the heart and lungs. Before entering the heart, however, it meets with the nourishment of our food, carried through the thoracic duct into the circulation. This being added, the blood again enters the heart.

In this way the whole system is furnished with nutrition. The oxygen taken in through the lungs, together with a portion of electricity, or magnetism, is carried and distributed to all parts of the body, to maintain its substance and vitality. Hence the importance of having not only wholesome and well oxygenized air to breathe, but a good full set of lungs to perform the process of breathing. If the chest is contracted, the lungs have not room to expand and receive a sufficient amount of air, and the vital powers become impaired. The blood is returned to the arteries imperfectly oxygenized and electrified, and the whole system suffers. General health becomes impaired, the lungs themselves then

often become irritated and inflamed, and death by consumption ensues.

A full chest therefore becomes an important matter. If the chest is too narrow and flat, a discipline must be gone into in order to expand it. With proper effort, the chest and the compass of the lungs may be greatly enlarged. In this way consumption may be prevented. Even if it has already reached its premonitory symptoms, it may be averted; or even in any stage short of ulceration, it can be cured.

The manner of doing this consists first in standing and sitting erect. Persons with weak lungs are inclined to bend over their chest, letting the spine curve between the shoulders, till the lungs become flattened and depressed. Let every such person bring his mind immediately to bear upon the consequences of this state of things, and determine to keep erect; let the front side of his body measure as much from the highest point on the head to his feet, as the back side from the same point. Let him also lay straight in bed; with shoulders elevated by inclined plane, and head lying on the same line of elevation, with a small pillow. This unvarying erectness of posture will of itself accomplish much in relieving oppressed lungs.

A second step to be taken consists in often inhaling large draughts of air; distending the lungs as much as practicable. By continued practice the lungs will be made to contain more and more air; the air cells become expanded. This should be done many times a day until relief is obtained.

A third step consists in repeatedly—many times a day—throwing the arms and shoulders back. This may be aided by weights in the hands—by the aid of dumb-bells,

or something equivalent. The shoulders should be kept back, and not permitted to curve round the lungs. If such be the degree of debility that the shoulders cannot be kept back, or in cases of children who cannot remember to do so, put on a shoulder brace. But where Nature is able to sustain herself in this process, she will ultimately do better without a brace than with it. Those who use them are apt to depend on them, without trying to discipline themselves.

Where a cough exists, this will demand attention. One of the very best cures for cough, is to stop coughing. Instead of allowing it to have full sway, increasing the irritation of the lungs and bronchial tubes, let it be suppressed as far as practicable. This will diminish the irritation of the lining membrane of the bronchial tubes and the substances of the lungs. The less the coughing is allowed, the less the inclination to cough. Where this effort cannot succeed, then resort to keeping the throat moist by aid of the saliva which can be produced at frequent intervals simply by gently biting the inside of the cheeks. In all cases where a cough is the result of consumptive lungs induced by dyspepsia—and such cases are not few—the best cough-drops in all the world are made of *dropping* the habits in which the cause originated.

Another important matter is living and sleeping in apartments well ventilated. This is important as a means of health, or the relief from any form or kind of disease. Every apartment of a house, and every school-room and public hall, should be well ventilated, allowing the air in the room to keep itself pure. A portion of the oxygen being taken up by the lungs, and carbon being given off by them, the air becomes devitalized and unfit

for being received again into the lungs. This impure air, being lighter than healthy air, rises to the top of the room, and will pass off if it can find vent, leaving room for pure air to come in. In this way the lungs are receiving new and healthy air by every inspiration.

For the same reason, no one should sleep without free access to a change of air. The offensive smell of sleeping rooms in the morning is owing to the repeated breathing of the same air, till its vitality has become destroyed, and the impure exhalations from the body pent up in a close room, where the air cannot renovate itself. It is all folly for people to talk of being so feeble that they cannot bear a window open. Every one can bear enough air to sustain healthy breathing; and all notions to the contrary are foolish and wicked. In small rooms, a window, or door, or both, should be open in winter as well as in summer. If we breathe the same air twice, it cannot the second time furnish sufficient oxygen for the blood. If people would give heed to these facts, they would prevent and even cure a large proportion of consumptive cases which appear among us. The strength and endurance of the whole system depend, in a very great degree, on the amount of healthy air that is breathed.

Tight lacing is suicide. The chest should have free room to expand itself, and allow the lungs to fill with air. The breathing should meet no resistance from dress.

There is a great damage done at the present day to the health of females by supporting clothes from the hips. This unnatural weight disturbs the bowels and all the other viscera of the abdomen. It drags them downward from their proper location and connection with the stomach, diaphragm and lungs. This leaves a

space between these organs which gives a sensation of faintness and sinking at the pit of the stomach, which is often called a "goneness." This leads often to a bending over of the chest and flattening of the lungs. Other organs also suffer. The liver is pushed downward and rendered torpid. The bile, which is the appropriate stimulus for the bowels, becomes deficient; the bowels become sluggish and costive, and the blood is left impure because the bile is not properly taken up, as is shown in the countenance.

If ladies would have health and a pure, clear skin, they must allow their lungs to receive the air freely, their liver a chance to cleanse the blood, and their bowels an opportunity to clear themselves. Unless they will do this, they cannot long maintain a clear skin and a healthful feeling. Costive bowels alone are ruinous to a healthy body and a cheerful mind. This condition is produced, not only by a sluggish liver, but by the whole viscera being pressed downward upon the lower intestine, and preventing its proper action by mechanical pressure. All other kinds of costiveness can be greatly overcome by discipline in mind and diet; but that which is caused by mechanical pressure cannot be cured till the pressure is removed.

The use of physic in such a case would be as unphilosophical as taking an emetic to cure a corn. The bowels and other organs which are fallen down upon the lower bowel, must be pressed upward. Every weight should be removed from them, the dresses suspended from the shoulders, and the bowels repeatedly pressed upward. If their drooping cannot be overcome in this way, a supporter should be worn till their native strength has accumulated. But where costiveness depends alone on

the sluggish action of the bowels themselves, it can be overcome by mental discipline. The mind should be brought to bear every morning on their action. They should be brought under the magnetism of thought. Let the mind electrify the bowels till they will move. A regular, systematic discipline in this way has overcome many a case of obstinate costiveness. A mental determination, persevered in, will effect that which never can be done with medicine, indeed, medicines should never be taken for costiveness, as they only increase the difficulty.

Another complaint prevalent at the present day among ladies, is depression of the uterus. This may be caused by a weakness in the ligaments which suspend it, or by a falling and pressure, as already described, to the bowels. Where it is produced by the latter cause, the remedy is obvious. Raise the bowels up to their place, and keep them there. When this cannot be done without mechanical support, an abdominal supporter should be used, till Nature shall again be able to support herself; for, without this kind of relief in the case, there can be no cure for this uterine derangement. Here let every young female see how liable she is to incur immense suffering by the weight of heavy skirts hung upon the bowels, and resolve never to run the risk of ruining herself for life in this reckless way. The bloomer and some other bicycle costumes, are certainly to be commended for one of their characteristics,—all the skirtings are hung upon the body of the dress, and supported from the shoulders. This allows the shoulders to carry the weight of the whole dress, and the bowels and other organs are left free from pressure.

Where depression of the uterus is owing to debility of

the ligaments sustaining it, some means must be resorted to for the restoration of tone. This may generally be done by giving tone to the muscular system in general; for these difficulties are generally found in those of feeble physical forces. Hence, restoring the general tone of the muscular system will give tone to these parts. That part of the system which can be exercised with the greatest advantage in these cases, is the arms and chest. Instances have often occurred where females laboring under this form of complaint were so feeble that they were almost, and sometimes quite, unable to walk. Many such have been cured by a process of exercise which only called into exertion the muscles of the arms and chest. By sitting and lifting weights, tossing balls, and such other measures of discipline as were proportioned to their strength, many have been restored to perfect health and soundness.

Millions of females are suffering for want of some vigorous employment of their physical energies. They do not go out enough and exercise in the open air, expand their lungs, and exercise their limbs. But walking is not sufficient exercise; it only uses the muscles of the lower limbs. The most important part of the system to be exercised, in any one of sedentary habits, is the arms and chest. An editor once said, "The best board for dyspeptic ladies, is a washboard." This remark contains sound philosophy. They need, not only for dyspepsia, but for the complaints just described, as well as others, some vigorous exercise for the muscles of the arms, chest, and abdomen. Raising the tone here, will by sympathy raise the tone in other parts. There should be an exercising apparatus in every household, and ladies and misses who lead sedentary lives

should feel compelled to spend an hour each day using the same, till they discard their dingy white faces, and put on Nature's crimson dye.

A fourth step towards the cure of disease is effected by remedial agents.

By the term "remedial agents," it is not intended to say much on the giving of medicines. These, though sometimes necessary, are never to be given where any other practicable method of cure is at hand. If the use of medicine was confined to this rule, drug stores would be retiring from the corners of the streets, and the sick would remain to pay their doctors' bills themselves, instead of leaving the matter to their mourning friends.

WATER is one important remedial agent. This is both a means of prevention and cure. Bathing, to keep the skin right, is treated of in another part of this work. The use of water, as a curative agent, is in some respects quite another matter. The degree of its application for cure, often found necessary, would be exceedingly injudicious in health. It would prostrate the physical forces. It would cause too much matter to be thrown off in a given time. But when the system is full of morbid matter, then the sooner it is parted with the better. And though the system be somewhat prostrated at first, it will soon gather a more healthy supply.

Water may be used in all feverish actions of the general system, or of parts of it. In general feverishness of the body,—hot, dry skin,—wrapping the patient up in a cold, wet, folded sheet, with a thick, dry blanket outside, will soon lessen the fever, moisten the skin by perspiration, and reduce the pulse. Repeating this may entirely break up a fever. So of a local inflammation. Water extracts the extra heat, changes electric action,

and opens the pores. This gives the natural functions of the part, or of the whole body to which it may be applied, a chance to equalize and harmonize their action.

For tumors, and general swellings, with inflammation, water is applicable in any stage short of the formation of matter. After matter has formed, then emollient poulticing becomes the only safe means of relief. But if local inflammations are treated right at first, they will generally be subdued without the formation of an abscess. Pleurisy, inflammation of the lungs, liver, or kidneys, may be cured by this method. Croup in children may be conquered by wrapping up the part effected in water as described. This course, in connection with treating the stomach with abstinence, gives Nature a chance to conquer disease, instead of breaking it up by the power of drugs, and leaving Nature, with her enfeebled forces, to throw off the effect of drugs. In conquering disease with drugs, too, we run the risk of destroying the adequate forces of Nature, and making a fatal case.

There are many diseases which originate in the existence of morbid matter in the stomach and bowels. In all cases of illness, the condition of these organs should be a matter of inquiry. Vomiting may sometimes be indicated. If so, this can often be effected, and made sufficient by large draughts of blood-warm water. The bowels may be moved with large injections of warm water. Every medical man, with common intelligence in the healing art, knows that there is remedial virtue in the use of water in such and similar cases,—that a good physician must be, in a great degree, a hydropathist.

MAGNETISM is another means of remedial agency. This wonderful principle in Nature is an element in human vitality. Though it may not be called vitality

itself, yet it is so closely related and connected with it, that vital action cannot be maintained without it. Take electricity from the human body, and not a vital function could be performed. Health depends greatly on an equilibrium of action in the electric forces. Many diseases—those which have close connection with the nervous system—seem dependent on a morbid condition of the electric currents of the body. In these cases particularly, if not in all others, Magnetism, as a remedial agent, may be serviceable. It may render service by furnishing a supply of this fluid where the disease may be attended by a deficiency, or by equalizing its action where its distribution is disturbed by excess.

There are different mediums through which this principle can be applied. One medium is the living human system. This may be called animal electricity, or as it is now called, Animal Magnetism, or, more recently, Hypnotism. All these terms are used to refer fundamentally to the same thing, but differ in regard to their modes of development. The former relates to influences which are carried to the point of producing the magnetic sleep; the latter, to a degree of the same kind of influence, controlling muscular motion and nervous sensation, while the subject is perfectly conscious and wakeful. In either of these ways, great good may be done; and it would be well if every individual would learn the process by which Magnetism can be personally applied. Every father, if not mother, of a family, should be able to practice this art in some degree.

It is not necessary, nor is it best in all cases, to go through the labor of producing the magnetic sleep. In most cases, where any influence can be gained, that which is able to control motion is sufficient. If all

diseased persons could be brought thus far under the influence, vast good could be accomplished in relieving human suffering. Almost every disease, especially among those of the chronic form, could be cured or essentially relieved. Many cases of the worst form of paralytic affections have been cured in this way. Some cases where the patient had been confined to the bed for many years—some cases of complete paraplegia, or palsy of a part of the body—have been cured as though by charm. It was done by simply supplying the part with a natural current of Magnetism. So, whenever palsy exists to any extent, there is a deficiency of magnetic force; and if that force can be supplied, the disease is cured.

Deficiencies in seeing and hearing, where the ocular and auditory nerves are at fault, may be relieved or cured by this means. Neuralgia and chronic rheumatism can be treated with great success when the patient can be brought under control. Swollen limbs, stiff joints, and contracted tendons, have borne testimony to the practicability of this kind of relief. Many cases of cure performed by my son—cures which seemed incredible—could be detailed, if time and space would allow, but we refer the reader to his many published works on this subject.

Sometimes persons have unconsciously electrified or anti-magnetized themselves into a cure by the mind becoming so strongly impressed with the certainty of a cure, that it electrified the part so powerfully as to set the absorbents at work, and carried the diseased conditions off. Warts are often removed in a similar way.

By the same kind of influence, bread pills and other supposed medicinal agents have produced a wonderful effect.

Great good can often be done through the mind of the patient, in the removal of disease. This may be called imagination. Very well. When the objector will exactly define what the imagination is, perhaps there will be left no desire for controversy. Let it be called imagination, suggestive therapeutics, or anything else. The name does not alter the fact that mental electricity has produced a new and healthy action in the diseased part on which it was brought to bear.

If all physicians would act on the Magnetic principle, selecting valuable facts from all sources—embracing truth for truth's sake—picking it up in the streets, even though fallen from the devil's budget of lies—the healing art would be honored, and the relief of the suffering promoted. But so long as they shall cloak themselves up so closely in their own orthodoxy as to reject truth, or refuse to examine the merits of a new idea, because it did not originate within the limits of the regular faculty, they will do damage to the profession and the world.

Human Magnetism may be used with great advantage without even trying to obtain complete control, and without producing any specific impression on the mind of the patient. This is done by personal contact with the part affected, and by bringing the forces of the will of the operator to bear upon the removal of the complaint. At the same time, it is well to keep the patient's mind under promise of cure. Many of the severest cases of rheumatic lameness and neuralgic pains, have been signally cured in this way.

Hypnotism may be successfully used in removing mental disturbances. A single case may illustrate this. A lady had become attached to a gentleman who had

solicited her hand in matrimony ; but, on learning some facts which reflected on his moral character, she decidedly refused his offer. Her mind, in consequence, became seriously depressed, and her health failed. Being promised relief by producing on her the hypnotic condition, she consented to give it a test. After producing the sleep, the mind of the operator, accompanied with manipulations, was brought to bear upon her brain and mental feelings. After the first operation she expressed decided relief, and in a few days, by repeating the effort, her mind and health seemed to be perfectly recovered, and have remained so since.

A case of partial and periodical insanity, which might be related, was cured in the same way. There is no doubt but that a large portion of the inmates of our insane asylums could be cured by this means, provided the influence could be produced sufficiently to bring on the sleep. Several cases of insanity have been known to be cured, taken in hand in their incipient stages, through such efforts.

Mechanical and chemical electricity can sometimes be applied with much utility. Electric shocks from the galvanic battery, or from machines which accumulate electricity by friction, made to pass through diseased parts, may restore the equilibrium of electric action, on which alone a healthy action can be based. It is more difficult to bring this electric influence to so perfect a bearing upon diseased parts in this way, as by personal electricity, when such an influence can be produced. Under personal electricity, a well joint or other part may be put into agonies of pain by the will and touch of the operator. So, on the same philosophic principle, a limb or other part suffering from disease may be set

right. These changes are produced by disturbing the electric forces in one case, and by equalizing them in the other. Where such personal influences cannot be produced, the battery may gradually reach and remove the difficulty. Every practicing physician, if not every family, should have an electrifying instrument. The magneto-electric battery is perhaps the most convenient instrument.

MEDICINES, if used at all, should be the last resort. Then botanic remedies are to be preferred; for they are less liable to produce unfavorable influence. They may be insufficient, but they poison no one to death. Even if they effect no good, they do no harm of themselves. But this cannot be said of ordinary drugs. If they do not effect good, they do harm. If the morbid influences which they always produce, do not meet and counteract the disease, they add another morbid and injurious influence to that already existing. In general, especially in chronic diseases, everything should be tried which can give any promise of relief, before resorting to medicines. Indeed, as a general rule, drugging in chronic cases is the worst thing that can be done. If removing causes, proper abstinence, judicious discipline, and other means short of drugs, cannot avail, the patient had better, as a general rule, make up his mind to die honorably, than to drug himself to death. To this, every practitioner of long experience will agree. There is scarcely a tithe of the medicine used now which was formerly given.

When people will study the laws of health and prevention with one-half the eagerness with which they grasp and devour some infernal quack-doctor book, and will obey those laws,—put away their rebellions against Nature, by which nineteen-twentieths of their infirmities

originate,—there will be but little sickness left to be prescribed for by any one. When, too, they use for the few diseases left, all other means of cure, there will be but little room for the use of medicines. But when any one has got into so deep trouble that nothing short of medicine can save him, let him have the best non-poisonous and most natural that he can find.

It has been my settled conviction, for many years, as before stated, that there is more damage than good done with medicine; and that, owing to the ignorance of the people, together with their recklessness on matters pertaining to the laws of physical life, their consequent misuse of the medical faculty, and their readiness in embracing all kinds of quackery—considering all this, it has been, for many years, my belief that the standard of health and longevity of our land would now be far above its present position, if there had never been a single physician or a single drug in it.

Dr. Johnson says: “I declare my conscientious opinion, formed on long observation and reflection, that if there were not a single physician, surgeon, apothecary, chemist, druggist, or drug, on the face of the earth, there would be less sickness and less mortality than now. When we reflect that physic is a ‘conjectural art,’ that the best physicians make mistakes, that medicine is administered by hosts of quacks, that it is swallowed by multitudes of people, and that the world would be infinitely more careful of themselves if they were conscious that they had no remedy from drugs,—these, and many other facts will show that the proposition I have made is more startling than untrue.”

Let it be remembered by all, that of all the cures that can ever be found, there is none that can be so valuable

as prevention. Nature is always right in her action, and she always goes for health. Disease is the result of unnatural agencies which generally may be resisted. Let Nature have her own way, and she will carry us safely through the voyage of life without wreck or founder, and allow us to die, not of disease, but of age. The laws of physical life are perfect ; and if obeyed, they will defend us to the last. Physical Nature will operate right, if left to itself. In this world there are various external agencies for whose injurious influences we are not responsible. But if Nature is not interrupted in her course by our own doings, she will always do her best to overcome all obstacles, and maintain a healthy action to the last ; and her voice can ever be heard, saying to every intelligent listener, PREVENTION IS BETTER THAN CURE.

CHAPTER X.

NATURE, INSTINCT AND REASON.

WHEN we know that truth has a living existence, and is not sought in vain in any part of creation, and see men prize it above aught else, and be grieved at the hate it often engenders; and see men despise it, and dare not speak it, from fearing the loss of that praise which obsequiousness brings, and find ourselves persuaded to whatever beliefs we will, it is easy to be confirmed in a feeling that mankind has too little regard for truth, even where it pertains to things most sacred.

Many men choose truth or falsehood with eagerness proportionate to the amount of pleasure they receive; some are active in pursuits or practice in professions, and adhere to doctrines with a degree of tenacity correspondent to their respective lucre; others are held to dogmas and fallacious principles from the instillation of precepts through education and custom.

Why it is that men of science who are constantly endeavoring to gain and disseminate knowledge neglect such a glorious opportunity of revealing truth as is offered them in the study of the structures and phenomena of the human body, and why it is that they are so zealous of truth, and yet discountenance the most apparent and essential truth, will be presently considered. How it is that they are so unjust as to strive to rob us of that disciplinary virtue which the experience and observation of even our simplest minds would otherwise

receive, and how it is that they encourage sin by promising a speedy cure of all diseases, will soon be seen. An evidence that the customary use of drugs, the popular belief in human healing, and the falsity and conceit of the doctor of medicine, should not be an attempted substitute for *Nature, instinct, reason and truth* in the cure of disease, will be presented. What must we say when the most vital and important knowledge is withheld by physicians from those to whom it is their sacred duty to give it? What can be more inexpedient than not to acknowledge with truth the competency of Nature to cure all curable diseases? Can we, in justice to ourselves, unite with the defenders of human healing, and sanction the practice of whatever manner of fraud, delusion and deception upon the weaknesses of our fellow-men, that their individual experiences, howsoever erroneous, have shown them to have been destructive to pain and hasteners imaginarily to health? That which, among the principles and practice of medicine, is not entirely discordant to morality and manhood, can never be of sufficient virtue to warrant a misdirection of knowledge and encouragement of error where truth and wisdom should most abound. The amount of ignorance among the people concerning the nature of disease is not so amazing as is the misplaced confidence in the power of cure. Man, with unjustly accredited healing art, is believed an oracle of wisdom and power who is the embodiment of a means of cure; while Nature's art receives so slight a recognition as being the power that relieves, and is ever watchful for our good, that it seems like blasphemy and sacrilege. This popular error is, however, mainly mitigated, when we see medicine teachers throughout the world educating

men to those beliefs that are not only deserving of censure, but are directly derogatory to Nature.

If we are to advise and practice a noble conduct in disease, we shall not be in the least disheartened from it when we see how great a degree of instability and uncertainty there has been and is, in every school of medicine, in every application of medicament, and in every popular tenet partaking of credence in healing.

We have but to recall the extreme fabulousness of Polyidus and his snake, and of Melampus and his goat, and the various errors with which primeval man has been justly charged, to see in what condition the healing art was at first conceived.

History has recorded the origin of medicine in the mythological deities. Tradition has been wonderfully well pleased to attribute to the impostures of Esculapius and Hypocrates that which it has been equally well pleased to call medicine.

That the remembrance of Hypocrates should become immortal from the utterance of such charlatanical pretences as were constituted in his claim to cure the most grave and melancholy diseases by the pulverized eye of an insect, the tooth of a fox, the horn of a goat, the heart of a mouse, the blood of a white pup, or the bile of a turbulent heifer, is what I am quite unable to appreciate.

We cannot consider Esculapius at a more contemptible distance for instituting a curative through the intervention of a snake, than Hahnemann for a promiscuous distribution of confectionated pills between the sick and their diseases. And it is incomparably more marvelous that for the last decade many of our most wealthy and supposedly intelligent people have accredited

to homœopathic "placebos" that of health they have enjoyed, than it is that Mesmer and Gassner, who, though they performed without drugs, were embraced by the nobility of their day.

The ancient order of priesthood had a most mystifying and depressing effect on that knowledge which would have otherwise led man to contemplate the power of cure.

We cannot find or imagine anything that so nearly resembles the freaks of a madman, as that which has been successively performed for a vague and delusive purpose, in the numerous painful, experimental and worse than useless operations, in the unnatural narcotization, in the excessive alcoholic stimulation, and in the anti-chimerical alterative, purgative and tonic.

The title of doctor of medicine has everywhere been too unsuspectingly supposed to be significant of good. Such a significance would be undoubted, if it were true that the "doctor of medicine" is possessed of a proper power to heal disease by the use of drugs; or justified in impressing upon the people a belief that drugs are necessary to the cure of disease; or honest and wise enough, through what ought to be his better instinct and reason, to teach the true intent, source and relief of disease; but while all this is untrue, and their deeds are in direct conformity to it, and their very existence in the hands of the multitude, they ought not only to receive a denial of such titular worth, but should be subjected to the most rigid censure.

This title of doctor of medicine bestowed from man to man, serves to tickle his vanity, but rarely discovering its own conceit. Since the doctor of *medicines* does not possess any unusual, exclusive or peculiar power of

doing good, and does not act in accordance to reason and truth, it is unwise to continue longer in the use of a title that serves only to license an oppressive practice of deception upon the sick community.

It should be the office of the physician to educate the people in regard to the laws of life; teach them that sickness is in consequence of violating natural law, and that health cannot be restored without obedience to these laws. Instead of this they have dealt by the people as have the priests in religious matters—kept them in ignorance covered up with the Latin language, and refused to explain, and thus they pass for paragons of wisdom, because people are not allowed to question, and they shut their eyes, open their mouths and swallow whatever the doctor prescribes, and take the fearful consequences, when, did they exercise their own common sense, they would forever cease using such deadly poisons, and resort to natural methods.

Notwithstanding custom has long since been an authority for the use of drugs in the cure of disease, it is no manner of evidence that such a practice is good, or that it will not soon become obsolete, and our confidence and gratitude thereafter placed in one that is reasonable and best.

In fact is there any reason for poisoning a person because he is sick? This woeful blindness to the facts of these abuses are causing heartaches and suffering all over the land, and the only hope for the people is in arousing them to think for themselves instead of trusting their souls in the hands of the priests or their bodies to the tender mercies of the doctors.

There is no doubt in the minds of candid medical men that too great a faith and credulity exists among the

people in the power of drugs to cure diseases. And there is no doubt in my mind that a vast majority of "doctors" are as firmly imbued with an erroneous and exaggerated faith and confidence in their power and skill to heal with drugs as are the people. But why and how does this obtain? We have seen how the "art of medicine" began, and what has always been its motive and support. And when we observe how jealously and almost instinctively we adhere to, and transmit from age to age, religious, moral and political principles, and remember that the same asserted faith in human healing, and the same code of professional conduct, is taught to-day as was delivered by Hypocrates, we shall have at least retraced the origin of our present painful relation to it to remote times. Although a number of the aphorisms of Hypocrates have been preserved till now, many were soon rejected as being fraught with nonsense. It is supposed that Hypocrates received his knowledge and precepts of healing from Esculapius. Esculapius received his from the god Apollo, and held that most diseases came from the gods, and consequently employed the intervention of other gods for their expulsion. He is now universally acknowledged to have been an impostor. The identity of Esculapius and Hypocrates with the doctor of the present day is in the use of a simple mechanical principle, a few vegetable and mineral substances, a code of professional ethics, and a belief, pretended or otherwise, in human healing. What is the import of these hereditary appurtenances? The mechanical supports used by them in surgery is none other than is suggested by our simplest instinct and reason; their "vegetable healing substances" have now an entirely different use; their code of laws concerning

conduct was common courtesy, and their belief in human healing was inexcusably erroneous.

It is needless to enumerate the cruel and absurd curatives that have been in vogue since the time of these men.

We are groaning under the slavery of drugs and doctors. We are forgetting the power of Nature, and fast losing our faith in fortitude, and our manhood will soon be going; yet we seek not to escape it by carefully shunning the far, and facing bravely the near, but eagerly resort to doctoral means, and receive that which sent us thither—fear, pain and ignorance.

If a doctor once gets a patient into his hands, he is pretty sure of a customer for life, which will not be long unless he have a remarkable constitution; and if so there will be plenty of business for the profession among his children. The theory of medicine has no science, no philosophy, not even common sense to commend it. I do not mean to say that drug-doctors do not possess common sense, for many talented men have honored the profession; but, the more profoundly educated they have become, the farther they have departed from the plain, simple teachings of Nature. They do not start upon the right basis, and, having started in the wrong direction, the farther they go the farther they are from the truth. They need to reverse their doctrines and practice and learn natural laws.

No human relationship is known or imagined where greater injustice is exhibited than between the drug-doctor and mankind. Where is there a more powerful teacher of rectitude and justice than Nature herself? Who can discover true justice sooner than Nature? And since it is from Nature that right receives its exist-

ence, with what is it more intimate than she? To say, then, that the relation of man and man, as is seen between physicians and their prey, is right to deny all this.

There is so much conjecture and uncertainty amongst doctors, no two acting or thinking alike, that mankind is ever in agony of suspense to seek and discover if all possible has been done and all to no purpose. That tranquility of mind arising from an utter reliance in Nature and truth, is a noble contrast to that painful agitation seen in those who are servile to the disability, doubts, and uncertainties of drugging. There is no art, science or handicraft in existence, where more folly and evil has been exhibited than in "medicine." The custom of "doctoring" is a mere relic of superstition and barbarism; for the pretended power of our doctors to foresee, judge, and act concerning disease, from an experience based on conclusions derived from premises, one of which at least is erroneous, does not differ from that of the diviners and magicians of old who first performed and practiced it. The present false worship of medicine is essentially the same as that of the people of the fourteenth century, who assembled on the banks of the Rhine, on particular days, for the purpose of curing their afflictions, or preserving themselves from danger, misfortune, accident, disease, and death, for the rest of the year, by praying and bathing in its waters, and other superstitious attributes of the power of cure. I believe that that part of medicine and surgery that involves a belief in a healing potency of drugs, or pretention and attempt to cure disease by the use thereof, or such a part as is commonly considered by the "doctors" and the people, is properly classed with spiritualism, for-

tune-telling, sooth-saying, sorcery, alchemy, and the like; and in a few years will be viewed with a similar aversion and contempt. For they are allied by history, and their coexistence has been universal, and have all been alike recognized by nobility and custom, and have all served an evil end. "Doctors" are as absurd and impracticable as were those men of Arabia who claimed to calm the tempest, stay the raging of the waters and the rigor of the weather, and cure and prevent all manner of diseases and expel evil spirits.

Whenever we seek for health it is needful to have our faith and hope well-founded. To confide in drugs is to have our faith and hope infinitely more ill-founded than in a degree corresponding to the amount of the unreasonable and nonsensical indirection of their aim and application. It seems quite essential that our faith should be well founded in some agent supposedly curative. And now since Nature is constantly restoring to health, notwithstanding the prevalent misdirection of faith, notwithstanding the disadvantageous effect of drugs to be overcome, it is only reasonable to suppose that it would far better become us to fix our faith firmly in Nature.

I believe vaccination has been the greatest universal delusion that has ensnared mankind within the last three centuries. It originated in fraud, ignorance and error, and lives as such willing foolery ever lives. It is absurdly unscientific and impracticable. It has been promotive of very great evil, and I cannot accredit to it any good.

Any procedure so plainly unscientific, unphilosophical and unreasonable can but be grossly useless. Scientific votaries concede its semi-fabulous and superstitious

origin; human reason derides and disowns it; no philosophy can entertain it. Men of science do not instruct us concerning that vaccine phenomenon upon which the supposed immunity from small-pox depends. The utmost they can say concerning it is, that a series of visible corporal symptoms or conditions are induced which are supposed to leave a specific systemic impression capable of preventing variola.

The two diseases, variola and vaccina, occur under such widely dissimilar and unknowable circumstances that the systemic impressions, or bodily conditions following therefrom, cannot be similar or identical. If the circumstances and conditions are not alike, and the impressions are not alike, the two diseases are not alike, and conversely. But assuming that they are identical, even then, as has been before said, the circumstances which favor the existence of the two diseases are too conflicting and unequal to yield anything but ignorance and uncertainty. We have no power to deal with such two things of an unknown quantity and quality with any degree of accuracy. I hold any attempt to beget practical good out of such rash conjectures as those concerning vaccination to be impostural.

This operation is the most universal if not flagitious of a group that is wholly unnecessary. Its vanity and craftiness being unreasonably unwarrantable is antagonistic to our need.

Credulity and error must give room to knowledge and truth. The slowness with which mankind will be brought to believe in the non-use of drugs in disease is no excuse for a continuous adherence to such delinquency and vain pretence as is seen among physicians. There is every reason to feel that all sickness will soon be left

to the kind certainty of Nature. It cannot be possible for universal education to advance and it be otherwise.

While it is the prime duty of every one to school the mind to a complete mastery over itself and the body,—to seek that power and freedom so readily within our grasp,—and to a proper understanding and glad acceptance of every phase of life, why do we so eagerly prefer that slavish weakness and dependence arising from the “opposites” of the “regular” and the “similars” of the “homœopath,” and the snares and delusions of both they and all other wielders, in the name of medicine, of willing fraud and error?

Had not this theme been so boldly distorted by tradition and custom, very much more might be said concerning it; but as time, and the unskillful conducting of the underhandedness of imposture, has plainly revealed the fullness of truth, and magnified Nature to human understanding to its just estimation, further thought is unnecessary.

Since the word *teacher* is the most apt of all the appellations applied to those who charge themselves with the care of the sick, it is the worthy service of him who bears it to teach and encourage that which is consonant with divine wisdom and human reason, fitting the mind thereby for the reception of that knowledge which is of primary necessity and naturalness; and to inculcate the benefits arising from a practical knowledge of Nature, of ourselves, of philosophy, of morals and of virtue.

Why whimpers the new-born babe after the mother's breast? He has a craving for it, because it is necessary for his existence—that is already instinct. Why are the smell and taste of all poisons disgusting and painful to

the man of Nature? In order to withhold him from partaking of things destructive to his health—through instinct. Even in this age of refinement the guide-posts of instinct are possessed in part by all.

There is no poison, which, when unmixed with other things agreeable to the taste, will not cause disgust and shuddering to every palate, and excite vomiting. However, when a little poison is combined with a great deal of wholesome matter, as alcohol in wine, with delicious fruits and sugar delicacies, then the palate can be deceived, and thus gradually be corrupted. The natural palate, when moistened by any intoxicating liquor, becomes alarmed, as all travelers and discoverers unanimously inform us, that every savage spits out the first draught of anything intoxicating, or perhaps swallows it with averseness and feelings of disgust. Of course, however, the first warning of instinct is soon overcome by intoxicating stimulants, the instinct-nerves are soon poisoned, and the toper is made. Farther, man and every beast, that is liable to be poisoned by the bite of snakes, feel, through instinct, without the help of experience or any warning, a shuddering, fear, and deadly enmity at the sight of all serpents, and either flee from them, or take the precaution to kill them. On the contrary, the hog, which is in no wise injured by their bite, exhibits no symptoms of fear, but searches for snakes as for caterpillars or acorns, and devours them; the same is the case with the stork and crane. The proud king lion flees from the scorpion: in his cage it makes him tremble and cringe with fear into the farthest corner; the colossal elephant exhibits the same symptoms towards that minute insect, which creeps into its

trunk, and thence into its brain, and thus causes its death.

All the warnings of instinct are entirely innate and need not the cultivation of experience, which constitutes wisdom. Instinct confines itself to the absolute questions of life, and is absolutely infallible.

With these and similar fundamental features in the nature of the animal organisms the learned naturalists have but little troubled themselves; with most of these gentlemen Nature is nothing else than a naturalist's cabinet with beetles and herbaria, and they are content with classifying salamanders, toads, lice and caterpillars; alas, let those vermin rest in peace until you have explored human nature!

The sum of all folly, and the fountain of all corruption, is the rebellion against the regulations of Nature, and the endeavor to find fault with and tutor them.

In this unfortunate direction of folly, there has been no human or scientific error in so high a degree fatal and silly as the medicinal method of cure.

The causes of disease resolve themselves into four classes:

First—In injuries inflicted by external objects.

Second—In destroying the balance of the functions through overexercise of individual organs; for example, of the organ of sight, of thought, of procreation.

Third—In destroying the same balance through injuries and fearful affections of the mind.

Fourth—In the burdening of the animal organism with foreign matters internally.

The causes of diseases given under second and third are extremely seldom present by themselves, they

are almost always more or less combined with the matters of disease given under the fourth division. To cure them it is necessary only to remove the *causes* of the disease.

A fifth class of causes of bodily suffering arises from insufficient nourishment and overdriven exertion of the whole body.

The causes of diseases being material, man can avoid them, because these disease-producing matters can only get into his body in a manner which comes to the knowledge of his senses, and which excites aversion, disgust, and even horror in every healthy and uncorrupted person, since instinct revolts against it.

Man has in his own self a warner and a safeguard against disease—and it must be so if we do not admit that man in his very creation is a marred and imperfect being, which would condition therefore an imperfect total creation. Only a fool can believe this; the wise man finds the older he grows, the deeper he penetrates into the wisdom of Nature, the more justifications of the apparent improprieties in the creation, and the more grounds for the acceptance of a most exalted wisdom. The evils which come upon the human race are not the consequences of perverted creation, but of perverted application of our own powers and our own freedom. Thus it must be; every being must bear in his or her own self the capability of being happy.

The physiology of man has penetrated most deeply into the laws of assimilation and secretion, and has in this province brought to light not only demonstrable principles, but has also effected a consolidation of the principles into an organic combination, into a system.

The pathology of the M. D's is founded upon the

empty page of physiology, and wavers, without foundation, in the air. To it belongs as little as does to the medical therapy the claim to the man of science, and therefore the term of rationality in behalf of the medical science can only be vindicated by such physicians as have no idea of the nature of a true science.

My doctrine of disease is founded upon Natural law, and upon demonstrated and undoubted laws of physiology, and rests therefore on a solid foundation.

Very often the various evacuations from patients undergoing hygienic treatment have decidedly the taste and smell of medicines, which the patients have long since taken, some more than ten or twenty years ago.

Persons who have gone through a mercurial treatment years before, have been salivated anew, which saliva tasted and smelled so decidedly of mercury, that not only the patients themselves have distinctly observed it, but also others coming in contact with them have noticed distinctly the most marked mercurial smell. This fact proves to an infallibility that the mercury had lain for long years as foreign matter in the body, and that it was finally in the Natural cure driven out through salivation, i. e., partly through perspirations and exanthems, partly through the flow of saliva, for it is well known that we are made sensible of every scent by the olfactory nerves coming in contact with the minute but material particles of the substance smelled.

When living naturally and free from the use of mineral and poisonous matter, the human body exists under an unceasing labor of excretion and fresh formation of humor, flesh and bony substance. In the course of several years the body of a healthy person living in accord with natural law is so completely renovated, that

of its whole substance, even to the minutest atom, nothing of the old is any more present. Physiologists differ very widely as to the length of time required for complete renovation, variously assuming it from two to seven years.

But the masses are so *unnatural* in many ways, and at all times, from the cradle to the grave.

Directly upon entrance into the world, the unlucky babies are favored by their nurses with draughts from the camomile tea-pot, and consequently, all nurseries ring with the cries of stomach-ache. At the same time, both before and after weaning, they are fed with cows' milk *boiled*. Will not the doctors and nurses soon fall upon the bright idea of first milking the mother, and boiling her milk? They are fed with warm, even hot, greasy soup, and in order to crown the work of stomach destruction, they are dosed with medicine, as soon as the organism begins a remedial struggle against so many perversities, as soon as a primary symptom of disease appears.

Take young lions into such a regime, and you will soon see a race of lions with cramps and gripes in the bowels.

Not only human reason and human instinct, but experience gives the incontestable certainty that children on a diet of cool or cold food, and unboiled milk and cold water, as the only drinks, *never* suffer from sickness of stomach, *never* have pains or gripes in the bowels, *never* have worms. If such children, through mistake, partake of unwholesome or poisonous things, they relieve themselves of them by energetic vomiting and diarrhœas, well observed, if Nature be allowed to

have its course, and its instinct aided with cold water ; but especially spared from swallowing medicines.

On the other hand, those unhappy martyrs of the old poisoning and effeminating system, pass through a childhood replete with suffering, and have before them the prospect of a life without health.

Children in general are remarkable for their health of stomach, which far exceeds the general average of persons advanced in years—and very naturally, because medicinal poisoning operates slowly and takes effect after a considerable interval. Most people think, however, that it lies in their nature ; that the child's stomach can endure more than the adults. We often hear it said, "such a youngster can eat anything!" Much rather say, "such a man can," because every grown creature has, from Nature, stronger organs than the young undeveloped.

The stomach of animals living in a *natural* state act perfectly and their flesh has always the same blood-color, because in the green republics of the woods there can be no chronic sickness, since there are there no doctors, no apothecaries, and no distilleries of intoxicating liquors.

Oh, the all-loving, noble Nature has given to man, as also to the beasts, no propensity, the appeasing of which renders him unhappy or unhealthy! But cultivation, i. e., those distortions and distractions of civilization of which America is so proud, and which are continually approaching nearer and nearer to the absurdities of the Chinese—that has perverted most conditions and circumstances, and plunged them into misery and error!

There can be no health without activity, temperance, cleanliness, and contentment. No faculty can be enjoyed

unless it be used, and it cannot be efficiently used unless it be healthy. Every healthy man is a busy man. Steady strength or energy is a sure sign of health ; spasmodic energy is a symptom of disease. Throw physic to the dogs and care to the winds.

In order to be healthy and happy we must not despise the little things of life. Life is made up of moments, and health and happiness are built up from atoms. Every moment, when awake, we must either be doing something to create health, or avoiding something which would cause disease. Just as cents make dollars, and grains of sand lofty mountains, and drops of water the unbounded ocean, so a little neglect may breed great mischief, little pains make serious illness, and momentary faults life-long miseries. A strong restraining power is necessary to get through life pleasantly, with freedom from care and a broken down constitution. Health is, in the first place, a gift of Nature, and it cannot be too highly prized both for its own sake and because it is the foundation of wealth and happiness. By wealth, we do not mean merely gold, houses, and land. There is a wealth of appreciation as well as of possession. You view with rapture the beautiful landscape, and for the time being it is yours ; nor is your enjoyment marred with the anxious thoughts which often trouble the owner of the estate. You cannot enjoy that which causes you care. Nature's gifts of air and sunshine are perfectly enjoyable because we have no concern about them. So health to be perfect must be unconscious health. Your body should not trouble you ; every part of its complex and wonderful machinery works so smoothly and harmoniously in health that you forget you have a body. The healthy man enjoys his food, his labor, his pleasure, and

his rest. His sleep is so profound that he does not even dream. Dreams are usually signs of derangement of mind or body. Our idea of a healthy man is—one who is at peace with himself, and with all the world. Lay it down as a golden rule that muscular exercise is indispensable to greatness and happiness. No person should expect to become great or eminent without a world of work; and the great art of life is to so blend bodily and mental exercise as to get the greatest possible benefit and enjoyment from both. It is not work but worry that kills people. The sickly man cannot enjoy life. The healthy man on the contrary enjoys all things in Nature, the song of the birds, the beautiful trees and flowers, the sunshine and even the rain; he finds—

Books in the running brooks,
Sermons in stones, and good in everything.

All eminent men have laid the foundation of their superiority by hard work during the early and middle portion of their lives. Those who study unduly and neglect the body are seldom found in the front ranks in the battle of life. Mentality depends upon vitality; and if you would nourish the brain you must nourish the body. That the brain performs the highest functions of our nature admits of positive confirmation, when we reflect that the size and conformation of the brain correspond with the characteristics of the mind, and that the severance of any nerve before it reaches the brain destroys its power of conveying impressions to and from the brain.

Every throb of the heart produces a corresponding pulsation in the brain and the mind; and every state of the brain is reciprocated throughout the body and mind. There is consequently the most intimate relation between body, brain, and mind, and neither of these can be

affected for good or evil without influencing the others in a corresponding degree.

The old adage that "Prevention is better than cure," applies with great force; but very few persons take sufficient care to prevent disease, and it is not to the interest of the doctors to prevent it. Neither is the cure of disease accomplished by any medical system. Nature does her own work. All that man can do is to aid Nature in her restorative efforts; for even sickness itself is an effort of Nature to rid the system of morbid and diseased conditions of body. When Nature is left alone to cope with disease, the struggle is brief in proportion to its violence; but when the disease has been of long standing, it gets such a firm hold that it is sometimes difficult to eradicate it from the system. Nature gently throws off diseased material in the form of a crisis, sometimes in vomiting, diarrhœa, or sweating, and sometimes by way of papulæ or pimples, as in small-pox. There are millions of pores in the skin which are the outlets for the waste that is continually going on in our bodies. Every healthy man throws off from two to three pounds of waste material daily. A large portion of this waste is thrown off through the pores of the skin in insensible perspiration; another portion is thrown off through the bowels and intestines; some by the lungs, and some in the urine. In every healthy person the waste matter is expelled in one or other, or in all of these ways; but sometimes Nature is overpowered and is unable to throw off these effete matters. The physician should then step in and aid Nature in her restorative efforts; but if we resort to blistering, bleeding, drugging, &c., we weaken still more the fortifications of life, and throw great obstacles in the way of a

cure. Sickly persons often take pills and other nauseous medicines, which in many cases become enveloped in a coat of mucous to prevent them doing injury, and then they are passed out by the usual processes, or they are retained in the system, and have a tendency to slime up the stomach and intestines. It is said that some persons take so much medicine and poisonous drugs into their systems, that the greater portion of their stomachs is thus slimed up with morbid material which retards the process of digestion. At such times the tongue is furred, and a general feeling of inertia pervades the body. When these morbid matters have accumulated in the system there is a tendency to drive them out, and every cold, fever, inflammation, or fit of coughing, is an effort of Nature to get rid of that which acts as an intruding and irritating substance in the system. Some medical practitioners administer sedatives, anti-spasmodics, and poisons; while others give alkalies and acids; but every system of treatment which does not aid Nature in her grand work of restoration is injurious to the body. Disease consists of exhaustion and impurity; hence a rational mode of treatment may be summed up in two words—purification and invigoration.

The present generation is in possession of many truths that were unknown to the last. We may therefore safely conclude that knowledge and science are advancing with speedy strides, and ignorance and superstition are retrograding in proportion. It is well to remember that persecution is, in a great degree, the offspring of ignorance; and in order to wither up the sprouts, we must extirpate the root. Plant wisdom where ignorance grows, and ignorance will soon wither and die.

Poisonous nostrums and dog Latin are everywhere

obliged to succumb to efficacious remedies and common sense; and the false prejudices incited by the common herd of diplomatized quacks are daily and hourly yielding to the force of irrefutable truth, as promulgated by the friends of true science.

There are many bigots in science, who, plodding on in the paths of those who have gone before them, believe that no improvement can be made in medical science, and consequently attempt none. But the vast improvements which are daily being made in every other science, gives the lie to such doctrine, and laughs it to scorn. As yet medical science has, in comparison with others, made small progress. Must the public fall victims to those monopolists in science, who are wilfully blind to those means of alleviating the sufferings of mankind, which do not emanate from the rules of the ancient school?

Below will be found some good reasons why the race is short lived. R. D'Unger, M. D., in the *Chicago Tribune* of September 25, 1898, has this to say:

"Some nine hundred years ago a Spanish alchemist, having failed to find the secret of life or a plan whereby gold could be extracted from the baser metals, asked the following questions:

"'Why are we short lived?'

"'Why are we cut down by disease?'

"'Why are we withered and shriveled up by the passage of the years?'

"'What is life?'

"'What is death?'

"The monk to whom these queries were propounded was unable to give answer. Nor, from that long ago

day until the present hour, has any satisfactory solution of the above problems been given.

“In the hope that some light as to those questions may go forth, I herewith present you with a few facts, which have become known to me through a close observation of human life and an earnest study as to what life and death really are; also from a careful study as to the cause of disease and Nature’s mode of curing it. These views of mine, I am aware, are not in accord with those of the great mass of medical thinkers, hence I expect opposition to them, but this expected opposition shall not deter me from my self-imposed task, as I am well enough versed in the law of physics to understand that, without resistance, energy cannot be evolved, and that without energy we stand still.

“What little I know as to life, disease and death has not been gained in a day or a year. The greater portion of forty-six years of my life has been devoted to studying as to how life—enjoyable life—can be prolonged. As a physician I have never considered it good policy to cram the blood of the entire body full of nasty drugs in order to correct an injury to some one of the many organs which, combined, make up the human organism. The business of saturating the whole system with so-called blood purifying remedies is a pernicious one, followed only because man has become idiotic enough to imagine himself the physician and Nature a sort of second-hand assistant. The reverse is the case. Nature is the great doctor, and man—no matter how well trained—is merely a helpmate, occasionally a poor one.

“It is only when the various organs are in a weakened condition, due from lack of proper nutrition

through the blood, that disease germs can secure a lodging wherein they can breed and multiply. It is their rapid propagation that debilitates and unfits an organ to perform its proper function. However, germs do not always come out victorious in their conflict with life. Nature has built man in a careful way. He is like a fortress with sentinels surrounding him. His sensitive nerves do the sentinel work, and if an attack is made the commander of the fortress is instantly apprised of it. If damage is sustained, force and material for repair is instantly dispatched to the damaged spot. This force and repair material is conveyed through the arteries to the nerve cells and capillaries. It is only when the channels through which the blood comes are interrupted that Nature fails to do her perfect work.

“There are drugs and drugs—some useful, some useless, some damnably dangerous. The greatest of all curative and germ-destroying drugs is found within the blood, which is prepared daily by Nature from the food we consume. Drug stores do not keep on hand this wonderful strengthener and repairer of man’s injured and debilitated organs; nor can the most skillful chemist prepare it. It contains not only the force, but the repair material also which is required when the organism is deranged or effected by the action of poisonous germs. The blood contains all the elements, as well as the force, which builds and rebuilds the animal body—those elements out of which bone, cartilage, tendon, ligature, muscle, and tissue are made. When the arteries, veins, capillaries, nerve cells, and tissues are clean and active the heart’s action forces this life-giving, life-prolonging, life-sustaining fluid to every nook and corner of the body. Its presence is a check, a resistance, to all germ

attacks. Poetically, the blood carries 'healing on its wings.'

"If perfectly healthy and strong-blooded men would marry none but healthy and strong-blooded women and vice versa a hundred years from now this earth would be peopled with a race of human beings alongside of which the present members of the population would seem as pigmies. Doctors, except in surgery, would not be needed then. People would die, of course, but not by disease. Buzzsaws, railroad smashups, wars, shipwrecks and all sorts of other casualties would keep down the population. Men and women, too, would live many more years than do those of the present generation, and be happier. Life would be sweeter. And what is life? Why, it is an invisible spirit of intelligence—a directive force, or something that takes up its existence in an organism through which it can perform acts and produce effects upon a world outside of itself. All that is now known, all that possibly ever will be known as to human life, is that we spring from a germ in the shape of a nucleated cell, the nucleole within which is so small that, enlarged microscopically to 9,500 times its natural size, it is yet no larger than an needle's point. From this infinitesimally trifling speck we grow in darkness until we are born into the world's light. Once here, if proper nourishment and care are bestowed upon us, and if we do not meet with an accident, disease, or some other casualty, we attain our natural height and bulk. Millions of us are born into the world, give a gasp, and go out of it; other millions reach a week, a month, a year's age; still other millions reach an age of 20 to 30 years, and some few attain the century round in the ladder of life, a few going beyond that."

Who are the opposers of the Natural Practice? Are they those who have tried it? No. Are they those who have taken pains to inform themselves on the subject? No. Are they those who in reality know anything concerning the practice? No. They are those who take everything upon trust; who are not in the habit of examining for themselves; who believe everything that *their* doctor or *their* minister says is law and gospel; in short, that in medicine in particular, the doctors know everything and the people nothing. And why do the doctors know so much? Simply because they have been in the wars and cut up live folks by the dozen; or what answers equally as well, and rather more humane, worked only upon dead ones.

Health and happiness are inseparably connected. This being an eternal truth, I consider it a duty I owe to natural suffering humanity, and the world, to do all I can to spread a system of practice which is simple, and safe, and *sure* to remove disease when properly and timely administered; or when the organs of the system are not impaired by disease, and worn out by old age.

Reader, consider! Will you have *scientific* (?) *treatment*? Or that which has *common sense* and the good of mankind in view?

CHAPTER XI.

HYDROPATHY, WATER-CURE OR HYDRO-THERAPY.

IT would be superfluous to say much in favor of a system of treatment, which, resting on its merits alone, cannot fail eventually of becoming general. It is not my object to endeavor to gain proselytes to a new therapeutic doctrine, or to render the water-cure more popular than it is at present. I address myself to that portion of the public endued with good sense, and with soundness of judgment, leaving it to them to form their own conclusions. I do not write for the present day alone, convinced as I am that the water-cure, through its intrinsic worth, and by the force of its beneficial operation solely, will break its way through the ramparts of prejudice opposed to it by frivolous and unreflecting minds, and surmount the impediments with which the blind adherers to prevalent doctrines, or the timid and half-instructed followers of the opinions of others, may attempt to obstruct its rapid progress.

Many works have appeared, both abroad and in this country, on the subject of hydropathy; the public of Germany, has, more especially within the last ten years, been overrun with books explanatory of the beneficial effects of water, written with the express object of giving popularity to this system, or designed to instruct the public in the modes of applying water in diseases, and in its use and action as a prophylactic remedy. Some of these works, however, are totally defective; others

but partially answer their intended purpose ; whilst some are absolutely injurious, and wholly objectionable, inasmuch as they diffuse false notions of the nature of this system of treatment, and recommend water without limitation in every disease.

Those who look through these pages with the idea of finding new views on the water-cure, or of meeting with theoretical disquisitions, will be disappointed in their research. The intention of my work is purely practical ; I have merely arranged that which is already known of hydropathy, and have given the treatment found most advantageous in practice in certain diseases.

In order to extend the sphere of utility of this work, it has been my chief endeavor to render myself intelligible to the non-professional reader, that the treatment by water may be safely introduced into domestic use, and exert its beneficial influence where it is most needed.

The extension of the use of water is of so much benefit to mankind, in health and in disease, and is so well adapted to our age, that it becomes in a philanthropic point of view meritorious in the individual, who thus renders an essential service to the public welfare, to lay remarks on the beneficial effects of temperance before the world, and to publish his experience on the admirable influence of water on the human organism, if it were only to furnish scientific men with facts whence they can form conclusions, and yield more perfect and elaborate productions. It will not be expected from me that I should bring forward a work on the whole system of hydropathy, for an elaborate and studied compilation of that description would be ill-adapted for a practical book, written, moreover, for the benefit of the public generally.

I bless Nature every day for water ; for the pure, soft, sparkling water. Who does not love it as it glistens in the dewdrop, sparkles in the fountain, or gurgles in the wayside rill? Who but listens with delight to its patter on the roof, its dripping from the trees, and its murmur in the pebbly brook? Who, unmoved, unawed, can watch it rushing over rocky beds of rapid rivers, madly dashing down the mighty cataract, spreading out clear and placid in the silvery lake, or slowly, yet unfailingly, rising and falling in the majesty of the boundless and illimitable sea?

And how essential is this element to our daily wants. In the preparation of food, in the cleansing of clothes and dwellings, in all the household minutiae, water is the one thing which can not be dispensed with. Who does not know, too, how the summer shower purifies the air of its noxious vapors, rendering it so sweet and refreshing to breathe, baptizing trees and plants, and giving new life and animation to every thing it touches? Even the cattle on a thousand hills are made happier and fresher by the falling rain.

How grateful ought we to be for this inestimable gift, and how careful to make a right use of it. When properly used it is one of the most important agents in preserving health, treating the sick, and prolonging life.

Those persons who bathe often, and are cleanly in all their habits, are generally moral and virtuous. Thieves, liars, pickpockets, drunkards and gluttons seldom bathe. Health, cleanliness, temperance, goodness and virtue are associates. Disease, filth, gluttony, vice, and crime seek the same haunts.

That man is not a very good Christian who never

bathes, and he who takes a daily bath is not generally a very great sinner.

Pure water is colorless, tasteless, and inodorous—a wise provision of Nature for the comfort and health of men and animals.

The purer the water used for mechanical or chemical purposes, or for bathing, drinking or cooking, the better. Pure water is the most perfect solvent, and the best absorbent. Pure water is always soft, but soft water is not always pure. The water of swamps and cisterns is soft, but seldom pure. Water is hard, only when it holds in solution mineral substances; but animal, vegetable, or mineral matters render it alike impure.

Water will absorb more heat than an equal bulk of almost any other substance. In its natural state, it is a liquid; but by the application of heat it is changed to a gaseous body, while the withdrawal of heat converts it into a solid. In the varying degrees of temperature, which it can be readily made to assume, consists one of its valuable powers as a remedial agent.

Mineral waters are those which contain mineral elements in large quantities, and hence are very impure.

That many persons are benefited by using these waters there is no doubt, but if they would combine the same amount of relaxation from business, with the outdoor life and varied amusements, and drink as freely of pure soft water, much more benefit would result.

Distillation is the most perfect method of purifying water, and stills are now made so cheap that every family should own one.

Hard water is made softer by boiling, the lime being precipitated upon the sides of the vessel. Boiling also expels the noxious gases, destroys all animal and vege-

table parasites, or removes and coagulates organic matter.

The true method of arresting disease is to remove the cause. One of the most efficient agents for accomplishing this is water. At the varying degrees of temperature, and by the different methods of application, water can be so applied as to excite special action in almost any organ of the body. It may be so given as to cause vomiting, purging, sweating, diuresis, etc. It may be made a tonic, a stimulant, a sedative, an alterative, in short, by means of it we can accomplish nearly all the grand results *aimed* to be produced by medicines.

Heat and cold exert a powerful influence, not only upon the circulation of the blood and the temperature of the body, but also upon the nervous system.

When heat is communicated to any substance, it causes that substance to expand, and when heat is withdrawn, or, in common parlance, cold applied, the opposite effect is produced, namely, contraction. Heat applied to the body expands the vessels of the part where the application is made, and increases the activity of the nerves. The blood vessels enlarge, lose in a measure their contractile power and become distended with more than their usual supply of blood. Cold applied to these vessels contracts them, forcing the blood out, leaving less than their usual supply.

Heat or cold, applied over the spinal column, exerts an important influence upon different parts of the body. The effect upon the internal organs and remote parts of the body is directly opposite to that produced upon the capillaries in the region where the application is made. To illustrate: by applying heat to the feet, the flow of blood to them is increased, and they become warm; the same result is accomplished by applying cold to the

lower part of the spine. Cold is applied to the bleeding vessels to stop uterine hemorrhage; hot applications to the middle of the spine will have the same effect. Cool or cold compresses are applied to the chest for pleurisy or inflammation of the lungs; hot applications to the spine, between the shoulders, will arrest these inflammatory processes much more speedily.

A knowledge of these facts, and of the correct methods of applying heat and cold to the different portions of the spinal region, and to other portions of the body, serves to make these the most powerful agents we have for the control of disease, whether acute or chronic.

Uterine hemorrhage is effectually arrested by the application of heat to the middle of the back.

Ice applied between the shoulders increases the flow of blood to the breast and warms the hands. Cold water applied to the lower portion of the spine prevents cold feet, relieves painful menstruation, piles, constipation, cholera, chronic diarrhea, spermatorrhea, and removes diseases of the bladder and many other difficulties. Ice applied to the spine is very effectual in cases of epilepsy, Saint Vitus's dance, diabetes, and paralysis.

The application of water as a remedial agent is both a science and an art, the principles of which must be thoroughly understood in order to insure success in the practice.

Hydrotherapy, as history teaches us, is by no means an invention of modern times. In the remotest and darkest ages of antiquity, water served probably as the exclusive beverage of man, and as the sole purifier of the skin. Water, moreover, was the chief remedy which the intuitive instinct of man suggested to him in all preva-

lent diseases. As long as man was acquainted with no other remedies for these purposes, and his mode of life was in accordance with Nature, he remained healthy and strong, and attained a high degree of longevity. With the progress of time, artificial, mostly warm beverages and baths, stimulating food, more flattering to the palate, assumed the place of cold water and cold ingesta, and the inevitable consequences of this luxurious mode of life soon made their appearance. Debility, and diseases of all kinds, now superseded the sense of health, strength and comfort which was experienced before. By this unnatural and extraneous influence, the irritability of the nervous system was augmented—disturbances of the digestive organs, of all the functions of the mind, and the whole animal economy, were created—whilst medical men, and the unlearned, strove to remove these evils, to restore the equilibrium of the system by a further encroachment upon Nature, and were forced for this purpose to have recourse to the stimulating means. But these remedies were found insufficient, or became inadequate to the purpose, when they subsequently lost their influence on a body accustomed to their use, and the faculty was obliged to invent new remedies, which were administered to the patients in a variety of ways, in smaller or larger doses, or diversified in their composition. In this manner the number of medicines increased from year to year, so that we need not be astonished at the great and flourishing extent of the *materia medica* of the present day. System followed upon system, because none answered our expectations or our hopes; error made way for error in the practice of medicine, as man digressed from the laws of Nature. More pernicious than the errors in the healing art, are the consequences

of the indulgencies and dissipations of men. The medical man is called upon to produce an instant cure, or to afford temporary relief, and is forced to resort to powerful remedies to alleviate the torments produced by an unnatural mode of living, for no other purpose than to smooth the way to fresh indulgence and its consequences—excesses which are again repeated without intermission, until no remedy is left—no method remains which could alleviate suffering for one day, much less for a more lengthened period; then follow the complaints, as a matter of course, of the inefficacy of all methods of treatment without exception.

At no time have men of merit and experience been wanting in the faculty, who have sought by word and deed to put a limit to this unnatural mode of life—who have attempted to recall the use of water as a dietetic and therapeutic, from the disuse and oblivion into which it had sunk. Many were the cures effected by these means. In the history of medicine we can therefore refer to no epoch where Hydropathy has not, for a short period at least, played an eminent and honorable part. If we attempt to fathom the reason why water, notwithstanding its proved therapeutic effects in most diseases, and its merits as an article of diet, should have fallen into disuse and oblivion, we shall always stumble upon an unnatural mode of life pursued by man, and errors in the practice of medicine. The cause of this disrepute has been laid *solely to the charge of medical men, but often without justice.* Do we not find, in all ages down to the present time, a number of medical men, names well known, who have sought with indefatigable zeal, and under many sacrifices, to restore water to the rank it deserves, and to *lead us back to our original*

and natural mode of life? But their warning and well-meaning voices have been for the most part disregarded. I hope to be more fortunate than my predecessors and cause man to listen to the voice of Nature.

It is, indeed, no very easy task, considering our artificial mode of life, to lay down perfect dietetic and prophylactic rules. Diet, in the extended sense, has to contend with physical and moral influence; its office is to preside over the operation on the animal economy of air, water, residence, rest, motion, waking, and sleeping, to maintain that just equilibrium which is so essential to the preservation of health. Pure air and water, and a healthy situation for residence, are not always at the command of man; the choice of rest or exercise between waking or sleeping, the selection even of his food and drink is not always in his power; and, lastly, *how rarely is he able, even aided by reason, to curb his passions!*

These circumstances, however, must not deter us from insisting on a due regulation of all that refers to health. The more difficult and important the affair, the more it will deserve our attention; the more urgent the reason for pointing out the exigencies of the case. The further we digress in our mode of life, in our customs and habits, from the simple path of Nature, the more urgent becomes the necessity for a strict observation of hygienic rules. These are not restricted to the body only, but must refer also to the mind, for the two are so intimately connected that every impression made upon and felt by the one, must necessarily influence the other. As a sound body is essential to the health and vigor of the mind, a quiet and composed state of the latter is, above all things, necessary for the maintenance of bodily health. No one faculty of the mind

must be exerted to excess, or predominate above the other; and the passions must be restrained within proper bounds.

Where understanding, mind, and will, are equally developed, and thoroughly harmonize, the mind may be said to be healthy; and in this case will exert a beneficial influence on the body, the health of which will again react advantageously on the mind. Agreeable mental occupation, regulated desires, and cheerful spirits, contribute materially to health and comfort.

If a regular and reasonable mode of life be of such importance to the healthy and robust, how much more essential must it be for weakly persons and invalids! I am justified in asserting, that no cure can be effected without a suitable and natural diet; but it is a difficult task to invent a dietary suited to all patients and diseases, and a still greater difficulty to induce the patients to observe it. The more simple and judicious the diet, the more simple the patient's habits, the sooner he will recover. With how many difficulties have we not to contend, even if our intentions be the best, in relinquishing indulgencies and pleasures of all kinds, although this self-denial is imperatively necessary for the cure of disease! The diet of patients during treatment by water should be nutritious and easy of digestion. The use of spirituous liquors, tobacco, and all stimulating food must be strictly avoided, because these things are in themselves sufficient to produce disease. Amongst the substances which derange the human organism most frequently are pork, all fat food, cheese, all kinds of highly-seasoned dishes, pastry, tarts, pies, &c. Avoid pepper, salt, and vinegar.

The diet in general must be simple, mild, nutritious,

even generous, according to the state of the patient; but by no means stimulating to the appetite, for condiments frequently seduce patients to intemperate excesses, more especially those suffering from abdominal affections.

That there is a peculiar exhilarating power in water, as Hufeland has assured us, the most violent opponents of cold water cannot dispute; though they may seek, by various means, to detract from its merits, or decry it as a dangerous remedy, an imputation which sense and reason have fortunately adequately refuted.

When the water-cure is introduced into general practice, and brought into operation in acute and active diseases, in how many cases shall we have opportunity of admiring, wondering at its favorable action! Hitherto it has been only applied to neglected cases, and such as have been pronounced incurable, after repeated trials of the various remedies in repute in chronic diseases, where the whole list of the *Materia Medica* had been previously exhausted. If water can effect cures, where all hopes were lost, how much more efficacious must it be, when brought into operation with due judgment at the proper time? The therapeutic operation of water would then no longer remain unknown to the public, and the favorable results of its use would meet with the acknowledgment they deserve, because obtained in the simplest and most natural manner.

The part which water and art undertake in the active process of cure, consists in regulating, aiding, and modifying the existing action tending towards cure; i. e., in cases where this action becomes excessive, or threatens to destroy the organism by immoderate exertions, as in inflammatory diseases, in checking its rapidity;

in those cases, on the other hand, where sufficient energy is not developed, where this curative action is too weak in comparison with the disease, as in adynamic or typhoid fevers, in augmenting its force. The former result is brought about by a continued and gradual operation of cold water taken internally for a length of time, by wet cloths, baths; the latter by sudden plunges into cold water (shocks), and stimulating applications: in both cases the preparation for the crisis, its acceleration and alleviation are effected, and the cure adapted to the weak, by copious drinking of cold water, by exciting the activity of the skin by affusion and baths, by envelopment (generally in wet sheets) to produce diaphoresis.

A mode of life conformable with Nature will admit of no other beverage than pure cold water, ordained by her as the common drink for all mankind. To the present day this law of Nature is renounced by the folly, ignorance, aversion, prejudice, and superstition of man. Whenever the voice of Nature makes itself heard, it is soon silenced by our sensuality, inclinations and passions. Many again are deficient in sound judgment or the necessary strength of mind to lay down a prejudice supported by medical men. There are moreover a number of persons, enemies to water from the most improper motives. But all these circumstances are insufficient to conceal the inestimable properties of cold water from quiet and deliberate reason. By the force of conviction in fact, to which prejudice must yield, correct ideas of the activity of water have already gained ground, and we need now no longer doubt of their ultimate triumph.

Where it is intended to serve as a remedy in disease, no definite rules regarding the quantity the patient

should drink can be laid down; the constitution of the individual and the nature of the disease must determine this point. In acute diseases, with few exceptions, water may be at all times (by day or night) given to the patient to allay thirst. In inflammations and fevers we often observe an incredible desire, for cold water, dependent on the internal heat and dryness of the skin. Nothing can be more arbitrary than to force patients to abstain from the use of cold water when suffering from fevers; and yet this proceeding, which is based upon prejudice solely, has continued in practice to the present day, and these patients are allowed to take anything but cold water. This is the chief reason why so many fevers and inflammations terminate with nervous affections and death. In observing physiologically the phenomena of unquenched thirst, we find that in its consequences it has an analogy with the symptoms of nervous fever, and yet patients are restrained from satisfying this desire for refreshment—in one word, they are permitted to languish and die. How many nervous patients would recover with the copious use of cold water alone! We have examples enough of such cases; but this proceeding is too simple to save the patient, and they are rather sacrificed to experiment and prejudice.

I cannot be too earnest in warning patients against drinking water to excess, or surcharging the stomach with water; especially as many incline to the opinion that in this way they may, as it were, wash away all their morbid affections in a few hours or days.

Simple and natural as pure water is as a remedy, it requires a certain power of digestion and assimilation to incorporate it with the body; it is therefore imperatively

necessary to pay some attention to previous habits. Many persons who have derived benefit from using water, are strongly prepossessed in its favor, and commence in this violent manner on every occasion, excite others to commit the same errors, and thus do much mischief.

In cases where errors have been committed against this rule, exercise and exertion are the surest means of removing the ill-effects.

The oral bath consists in repeatedly rinsing the mouth with cold water, which is retained for several seconds, and by bending the head backwards, brought in contact with the posterior fauces, which also require cleansing. This bath deserves especial recommendation, as an excellent tonic and purifier of the mucous membrane and salivary glands; its salutary effects extend also to remote organs, which are not brought in contact with the water.

The nasal bath (rinsing of the nose) consists in drawing water up the nose, and again expelling it. This application has also a purifying effect, as a solvent of obstructions and deposits, invigorating and strengthening the structures.

To promote and increase the effect of water, used internally, it is applied externally in a variety of ways, according to the objects to be fulfilled in the treatment.

In the course of a day, the whole body, the covered parts least, and the uncovered most, becomes covered by a pellicle of impurities of every description. If this pellicle be allowed to remain, to become thick, and establish itself upon the skin, effects which I shall now proceed to detail will follow. In the first place, the pores will be obstructed, and, in consequence, transpiration impeded, and the influence of the skin, as a

respiratory organ, entirely prevented. In the second place, the skin will be irritated both mechanically and chemically; it will be kept damp and cold from the attraction and detention of moisture by the saline particles, and possibly the matters once removed from the system may be again conveyed into it by absorption. And, thirdly, foreign matters in solution, such as poisonous gases, miasmata, and infectious vapors, will find upon the skin a medium favorable for their suspension and subsequent transmission into the body. These are the primary consequences of neglected ablution of the skin; let us now inquire what are the secondary or constitutional effects.

If the pores be obstructed and the transpiration checked, the constituents of the transpired fluids will necessarily be thrown upon the system, and as they are injurious, even poisonous, if retained, they must be removed by other organs than the skin. Those organs are, the lungs, the kidneys, the liver, and the bowels. But it will be apparent to every one, that if these organs equally, or one more than another, which is generally the case, be called upon to perform their own office *plus* that of another, the equilibrium of health must be disturbed, the oppressed organ must suffer from exhaustion and fatigue, and must become the prey of disease. Thus, obviously and plainly, habits of uncleanness becomes the cause of consumption and other serious diseases of the vital organs. Again, if the pores be obstructed, respiration through the skin will be at an end, and as a consequence, the blood, deprived of one source of its oxygen, one outlet for its carbon, the chemical changes of nutrition will be insufficient, and the animal temperature lowered. As a consequence of

the second position, cutaneous eruptions and diseases will be engendered, the effects of cold manifested on the system, and the reabsorption of matters once separated from the body will be the exciting cause of other injurious disorders. The third position offers results even more serious than those which precede. If a pellicle of foreign substance be permitted to form on the skin, this will inevitably become the seat of detention of miasmata and infectious vapors. They will rest here previously to being absorbed, and their absorption will engender the diseases of which they are the peculiar ferment.

With such considerations as these before us, ablu-tion becomes a necessity which needs no further argument to enforce strict attention to its observance. But I fear that water, the medium of ablu-tion, hardly receives a just appreciation at our hands. Water is the most grateful, the most necessary, and the most universal, of the gifts of Nature.

Water in its relation to cleanliness, enables us to remove the pellicle of impurities previously spoken of from our bodies, and also from the clothes which we wear nearest our skin, and it effects this purpose by its quality of dissolving saline matters, and holding in temporary suspension those which are insoluble.

Now as to the temperature of the water used in ablu-tion. In this, as in most other of the rules of health, extremes should be avoided. To a man whose duties call him to brave the cold of winter in all its intensity, water at its lowest temperature is appropriate and refreshing. But to a woman or an invalid, such a degree of cold is painful.

In alternations of temperature, as of food, clothing and exercise, moderation and judgment must be used ;

and if we are in doubt, we had better trust the casting vote to our sensations, which will rarely deceive us. As regards the frequency of ablution, the face and neck, from their necessary exposure to the atmosphere and the impurities which the latter contains, cannot escape with less than two ablutions in twenty-four hours; the feet, from the confined nature of the coverings which are worn over them, require at least one; the armpits, from their peculiar formation in reference to the detention of secretions, and also from the peculiar properties of the latter, at least one; and the hands and arms so many as nicety and refined taste may dictate. No harm can arise from too frequent ablutions; much evil may result from their neglect.

Such is ablution when intended for the purpose of cleanliness, but it must be in the experience of every one, that other effects originate from its use; that nothing is more refreshing than a thorough ablution; that, in point of fact, to those who conduct the operation properly and with a due attention to temperature, nothing can be more luxurious, nothing restore the energies more surely and more agreeably, after hours of toil or exertion; and, as I am about to show, nothing can be more healthy. The common term which is here applied to the effects of a thorough ablution is "bracing;" in professional language we speak of them as being "tonic;" and in truth there exists no better means of restoring the "tone" of the system than the judicious employment of water; and this leads me to the modes in which water may be used with the best prospect of benefit to the health.

It must not be supposed, that because water is a good and excellent tonic, our health would be better for being

thrown into a fever by it, or even drowned in it, any more than that a parallel argument would be tenable with regard to food, clothing, or exercise. I know very well that equilibrium is not suited to the times; that there exists among mankind, in medicine as in politics and religion, a certain thirsty "go-ahead" or "go the whole hog" principle which is absolutely insatiable. I do not say that this character is the peculiar attribute of the present age, for the history of nations proves it to have existed at all periods of the world. There is no philosopher's stone of health any more than for commuting the grosser into the precious metals. But every one who desires it has the elements of an equally valuable "arcanum" in conforming to a correct practice of diet, clothing, exercise and ablution.

The simplest mode of applying water to the skin, and that by which the smallest extent of surface is exposed, conditions of much importance to the weakly and delicate, is by means of the *wetted sponge*. In this mode, the water may have any temperature that is agreeable to the sensations, a part only of the body is exposed at a time, and as soon as that part has been *briskly* sponged, and as *briskly* wiped dry, it may be again covered by the dress. The whole body may in this way be speedily subjected to the influence of water, and to the no less useful friction which succeeds it in the operation of drying. An invalid rising from a bed of sickness would adopt this remedy by degrees, beginning first with the arms, then proceeding to the chest, and then, gradually, to the whole body. He would use warm water in the first instance, but if the season were summer, would be speedily able to proceed to cold. A person of weakly habit beginning a system

of daily ablution for the first time should commence with warm water, and in a short time his powers of endurance will have become so well trained, that he will bear cold water without inconvenience. It must be admitted, that the plan here laid down is very simple; it requires no apparatus, a sponge and a basin being the sole furniture for its use; but it is no less a valuable appliance to health. The cold chill of the sponge, which was at first disagreeable, becomes pleasant, the quick friction which ensues is agreeable, and while it stimulates the skin, gives action to the whole muscular system; and the warm glow, the thrill of health which follows, is positively delicious. I must, however, call attention more strongly to the "glow of warmth" over the surface, as it is the test by which the benefit of the remedy is to be estimated in this and in all other forms of ablution and bathing.

The second form of ablution by the sponge requires the aid of a large shallow tub, or sponging-bath, in which the bather stands or sits, while he receives the water from a sponge squeezed over the shoulders and against his body. The same precautions, with regard to temperature, may be taken in this as in the preceding case.

In the early use of the sponging-bath, the bather should content himself with a single affusion from the sponge, and should then dry the body quickly. As there is more freedom for the limbs, there is more muscular action in this than the former method, and the glow is proportionately increased. Indeed, in the sponging-bath, exercise and ablution are combined, and its employment by persons of sedentary habits is highly advantageous.

A third kind of ablution is that with the shower-bath, which provides a greater amount of affusion than the former, combined with a greater shock to the nervous system. But that which more particularly distinguishes this from the previous modes is the concussion of the skin by the force of the water, the degree of concussion having reference to the height of the reservoir and the size of the openings through which the little columns issue. The usefulness and convenience of the shower-bath and its facilities of application render it a necessity in every house.

The shower-bath must be located in a warm room, and every regard paid to comfort and convenience. It is in this that the public bath is generally so much superior to that of home; in it, every suggestion that comfort and even luxury can invent is realized, and over such a bath only does Hygeia preside. The shower-bath admits of modification, to render it suitable to the most delicate as well as to the most robust. The extent of fall may be increased or diminished, the apertures may be regulated, so as to produce the lightest shower or the heaviest rain; the temperature of the water may be adjusted to any degree of warmth, and moreover, the quantity delivered also determined. I cannot too often repeat that the sensations of the bather must be tenderly regarded, if good is to follow the practice of ablution; and this is in no case more necessary than in delicate or convalescent health. By judicious training, the nervous system, which would shudder under the application of a tepid sponge to the skin, could be made to bear, without uneasiness, a charge of cold water from the shower-bath. It is evident that in this case a victory is gained over the sensations of

the utmost importance, and one which cannot be too highly valued; for by a parallel reasoning, the skin, which in this way is made to bear the shock of a shower-bath, could better and for a longer period, resist the influence of atmospheric cold and its consequent morbid effects on the economy. In making use of the word "shock," as expressive of the effect of a discharge of water by the shower-bath on the surface of the body, it must not be supposed that I refer to any unpleasant or painful effect; this is far from being the fact; the shock with warm water, with which the bather should always begin, is really agreeable, and the feeling will be one of regret when the shower is at an end.

In using the cold shower-bath, it will be found that the first impression made upon the skin is much colder than that which follows; and after being prolonged for a few minutes, the sensation is really one of warmth.

Before quitting the subject of the shower-bath, I must refer to an objection that has been made to its use, namely, that it is liable to cause a determination to the head, and is therefore improper for persons of full habit. This is an error originating in the abuse of the bath, and is only so far related to truth as to the assertion that an excessive meal will produce apoplexy.

I should not deserve the pardon of my lady readers if I were to neglect another matter connected with this subject, namely, the suggestion of some covering for the protection of the hair. The best contrivance for this purpose that I have seen, is a high, conical, extinguisher-shaped cap, made of some light material, and covered with oiled silk. A cap of this shape has the advantage of not interfering with the descending shower, while by the breadth of its base, it effectually protects the head,

and offers the means of tying a border of the same silk beneath the hair.

There is also now manufactured a "bath-ring," which is to be worn around the neck, thus spraying only from the head downward. This valuable appliance can be used in ordinary bath-tubs.

The douse or douche-bath is a contrivance for applying water locally, and combining with affusion, more or less concussion of the skin. As the remedy for local disease, this form of bath has been in use from time immemorial: a jug of water poured from a height on a part of the body is a douche-bath; and a more complete one is the stream from a pump, the popular treatment of a sprain. The douche-bath to the head is also applicable to some kinds of insanity. From these remarks it will be apparent that the douche-bath is less manageable than the forms previously described, and that recourse must be had to some bathing establishment when its use is required. In establishments of this nature the douche may be obtained of any size or temperature, and may be received in any direction, some being horizontal and some also ascending. The concussion of the skin, caused by the blow of the water against the surface, is a feature of importance in this form of bath.

Partial, or Half-Baths.—All baths, where the common bathing-tubs are half or three parts filled with water, are thus partial or half-baths. The half-baths serve frequently as a preparation for the full-baths, or for a more active system of treatment; they have, therefore, a higher temperature, between 59 and 77 degrees of Fahrenheit. They should be continued from five minutes to an hour or more, according to the purposes

we have in view. If these baths be intended as a preparation for more active treatment, they must be of short duration, as also for persons who cannot bear cold baths, or full-baths. If the object be to produce a derivative effect, to remove congestions from other organs, the durations of these baths must be regulated by their effects. Neither the temperature, nor the length of time, can be determined beforehand ; this must be regulated always by the constitution, the nature of the disease, or the obstinacy of the case ; generally speaking, a quarter or half-hour will suffice.

The whole time the patient is in these baths, he should continually rub himself with the water contained in the tub, extending the friction to the parts above and under the water, that he may not take cold.

Neither half-baths, nor any other kind of bath, are to be taken on a full stomach. Exercise, further, is especially to be taken after long continued half-baths ; it must not, however, be neglected after the use of cold water in any form.

Full-Baths.—For these baths spacious and deep receptacles are necessary ; they should admit of freedom of motion, and fresh water (if possible) should uninterruptedly flow into them.

Only young, robust persons may, without injury, venture after protracted sweating to plunge suddenly into the full-bath. It is, moreover, necessary to enter the full-bath as soon as possible after gently and quickly cooling head and chest ; for all unnecessary delay is attended with pernicious consequences.

The length of time the patient should remain in the bath varies in different cases ; half a minute or one minute is generally sufficient.

Cold full-baths are indicated in all those diseases where augmented reaction, invigoration, or a shock to the nervous system, is to be produced, where the warmth of the whole body is to be equalized; where all secreting and secerning vessels are to be invigorated; where the circulation of the blood is to be determined to the skin for the elimination of morbid matter.

These baths are to be avoided, or used at least with caution, in all congestions, in inflammations of internal vital organs, in diseases of the chest without exception, in certain head affections, in cases where a very active crisis ensues, and in all those where violent excitements or shocks would prove injurious.

Wet Bandages.—By these applications two different effects may be produced, viz., that of cooling the part to which they are applied, or that of raising its temperature. Where they are intended as refrigerants or derivatives, the cloths must be of a size suited to the part inflamed; they should be folded six or eight times, dipped into very cold water, gently expressed before application, and are to be renewed every four or ten minutes, according to the degree of inflammation. If you cannot obtain water sufficiently cold in summer-time, ice must be added to it until its temperature sinks to 41 or 44 degrees of Fahrenheit. This low temperature is especially necessary in dangerous inflammations of important organs, *e. g.*, of the brain. The bandages must then be continued without intermission day and night, until danger is averted. Neglect in changing the wet cloths at the proper time, might cause fatal results. One omission of the change is sufficient to frustrate their beneficial operation, for violent reaction is only to be subdued by continued cold.

The warming applications of cold water consist of pieces of linen folded two or three times, and dipped into cold water; they must be well expressed before application, and not changed until they begin to dry—this is the indication for their repetition. This variety of application must be not only well adapted to the part, but is to be further secured against the access of air by a dry bandage, in order that the reaction it produces may generate a degree of heat in the part covered exceeding the temperature of the body. The combined action of the moisture and heat thus produced, is that of a solvent of morbid matter, dispersing swellings and indurations, which are thus rendered more fit for absorption and elimination. These applications are not only well adapted for the removal of tumors, but may be applied also with great benefit in various cases of affections of the abdomen. Their efficacy in all derangements of the digestive organs, and diseases of the liver, &c., is proved.

Wet Linen Sheets.—For this purpose the bed must be prepared. The wet sheet is laid upon the extended blanket, the patient lays himself at full length upon the former, whereupon it is folded round him, so as to come in close contact with every portion of the body. The patient is now to be enveloped in the blanket and bed-covering, including feather beds, if possible.

The wet sheets are of remarkable utility in all febrile diseases. In acute fevers they must be changed according to the degree of heat, every quarter or half-hour, until the dry, hot skin of the patient becomes softer, and more prone to perspiration. When this symptom is observed the renewal of the wet cloths may be delayed for a longer period, until perspiration actually ensues.

The patient must then remain for several hours in this state until uneasy sensations, and other inconveniences render it necessary to extricate him; but it is more advisable to keep him in the loosened envelopment until perspiration ceases spontaneously, when a tepid ablution or half-bath should follow.

Dry Pack.—The dry pack differs from the wet, in that the patient is wrapped in dry flannel blankets instead of the wet sheet.

Perspiration is easily induced in the dry pack by drinking hot water and surrounding the body with hot bottles or bricks. This application abstracts less heat from the body than does the wet-sheet pack. It should be followed by the towel bath, the rubbing sheet, or the half-bath.

Fomentations.—The method of applying a general fomentation is to fold a flannel blanket so that it shall be three or four thicknesses, extending from the armpits to the hips, or a little lower; place this across the bed, and let the patient lie upon it in such a way that the ends of the folded blanket can be brought over the chest and abdomen. Take a woolen cloth—folded about four thicknesses—large enough to cover the part to be fomented; roll up this folded cloth, and holding one end of the roll in each hand, dip the middle into boiling water; when it is completely saturated raise it up and twist it by the dry ends, wringing the water from it so that it will not drip. It may now be unrolled and held close over the part to be fomented till it is sufficiently cool to admit of its being pressed upon it; when this is permitted, bring one end of the folded blanket over, so as to cover it all in, and then the other end in a similar manner.

The hot cloth may remain covered by the blanket from six to twelve minutes, and then the application be renewed, or replaced by a fresh cloth, which is better. Care should be taken to expose the bather as little as possible while the hot cloths are being changed. Fomenting cans, bottles or rubber bags, filled with hot water may be used to save changing the cloths. This process may be continued from twenty minutes to an hour or two, as the case requires.

There are some conditions and constitutions of a nervous character to which *warm* fomentations are better adapted than *hot*, and the practitioner must of course discriminate in such cases as to which is most applicable. Fomentations effect almost magical; patients suffering from gall-stone, from gravel, or from stone in the bladder, are often relieved immediately, from the most excruciating pain, by means of hot fomentations.

Determination to the head during the process must be removed by cold applications to that part. If the feet remain cold for a long time in the wet cloths, and show no disposition to become warm, they are to be extricated and wrapped in the dry blanket only.

When the cold bath is disagreeable to the sensations or to the constitution of the bather, it may be raised in temperature to suit. It then changes its designation, and, according to its heat, is termed, temperate, tepid, warm, or hot. A temperate bath ranges from 75 degrees to 85 degrees; a tepid bath, from 85 degrees to 95 degrees; a warm bath, from 95 degrees to 98 degrees; and a hot bath, from 98 degrees to 105 degrees. In other words, the warm bath comes up to the elevation of the warmest parts of the exterior of the body, the hot bath to that of the interior, and a little beyond; the temperature of the

blood on the left side of the heart being 101 degrees.

Bathing and exercise are very closely allied to each other—they both stimulate the actions of the skin, and both, if carried too far, are productive of fatigue. Bathing, again, is indebted to exercise for some of its useful properties. In like manner, the rules of bathing and those of exercise are very similar. Bathing, to be efficient in preserving health, should be regular, should be commenced by degrees, and increased by a process of training, and should not be permitted to intrude upon hours devoted to some important function, such as digestion. It must not approach too near a meal, that is to say, if it be attended with the least fatigue; nor must it follow a meal too closely, two or three hours being permitted to elapse. The time occupied in bathing in cold water by invalids should not exceed a few minutes, ranging, perhaps, from two to ten; but persons in health may carry it to the point of satiety, provided that they combine with it active exercise. The period for the tepid, warm, or vapor-bath, is from a quarter to half an hour, unless special indications require to be fulfilled.

I come now to the immediate physiological effects of bathing on the system. When the body is moistened with a sponge wetted in cold water, or when affusion by the sponge or shower-bath is effected, the skin immediately shrinks, and the whole of its tissues contract. As a result of this contraction, the capacity of the cutaneous system of vessels for blood is diminished, and a portion of blood circulating through them is suddenly thrown upon the deeper parts and internal organs. The nervous system, among others, participates in it, and is stimulated by the afflux, and communicating its impression of stimulus to the whole system, causes a more

energetic action of the heart and blood-vessels, and a consequent rush back to the surface. This is the state termed "reaction," the first object and purpose of every form of bathing whatsoever, the test of its utility and security. Reaction is known by the redness of surface, the glow, the thrill of comfort and warmth, which follow the bath, and the bather should direct all his care to insuring this effect. By it, the internal organs are relieved, respiration is lightened, the heart is made to beat calm and free, the mind feels clear and strong, the tone of the muscular system is increased, the appetite is sharpened, and the whole organism feels invigorated. This is the end and aim of the bather, and to this all his training tends. The error is, to expect the result without the preparation. After a proper training the most plethoric and apoplectic individual may derive health and safety from systematic bathing; but it will be seen at a glance, by the above explanation, that without the training the attempt would be madness. But the reader must not imagine that because there is danger in bathing in a particular case, the practice is dangerous: that would be an erroneous inference. I have endeavored to show that food, raiment, and exercise, when judiciously used, are the source of many enjoyments, and the means of our existence; and I think it will be granted me without difficulty, that excess in either is replete with danger. Are we to give up the use of food because an incautious person eats himself into an apoplexy? Bathing is as little dangerous as food, the difference between the two being, that we prefer the one, and therefore take it under the mantle of our protection, while we repudiate the other, because it is less agreeable to our appetites, or perhaps a little troublesome.

In order to increase and promote the action of the skin, various measures and manipulations are resorted to, some of them practiced in the bath, others after quitting it. Of the former kind is the operation of shampooing, which consists in pressing and kneading the flesh, stretching and relaxing the joints, and brushing and scrubbing the skin. In the East the practice is most singular. You are laid out at full length, rubbed with a hair-brush, scrubbed, buffeted, and kicked; but it is all very "refreshing." The ancients were in the habit of scraping the skin with an ivory knife. But practices so agreeable to the bather have been little followed in temperate and cold climates, partly from the prevailing neglect of the bath, and partly from the necessity of having the operation performed by a person skilled in the manœuvre. Our common means of stimulating the skin are confined to the rough towel, the hair glove or rubber, and the flesh-brush.

For tender and delicate skins, the rough towel answers every purpose, and should be used by the bather himself, unless the exertion be found too great, or cause palpitation of the heart. In the latter case, it must be resigned to an attendant, and the process completed by the bather, in order that the reaction may be increased by some degree of muscular exercise.

The influence which the bath exerts over the nervous and circulating system of the bather is not the least remarkable of its effects. The temperate and the tepid bath, for example, produce a gradual diminution in the number of the heart's pulsations, a calm in the nervous system, and a tendency to sleep; in other words they are *sedative* in their action on the system. The hot-bath, on the contrary, causes an excitation of the

nervous and vascular system, an increased heat of the interior of the body, and a quickened pulse, and profuse perspiration. It is weakening to the system, and should be seldom if ever taken, except in the form of hot air or steam. The warm-bath, occupying a mid-position between the tepid and hot-bath, is also intermediate in its effects; but as the power of maintaining and bearing heat is very different in different persons, it is impossible to fix upon the exact point of neutrality for all. It appears to extend over a range of about ten degrees, from 90 degrees to 100 degrees, so that if we wish designedly to produce a sedative or a stimulant effect on the economy, we should, having always regard to the feelings of the bather, select a temperature above or below the neutral range.

Another curious and important law is associated with the influence exerted by the bath over the state of the pulse, which is, a power of absorption by the skin below the neutral range, and an augmented transpiration above it. The absorbing power is modified by various circumstances, such as the quantity of fluids already contained within the tissues of the bather, the state of the body in relation to food, activity of nutrition, &c. In this sense, medicated baths have the power of acting upon the system. The process is, however, slow, and requires long immersion when the water-bath is used, but is more active with the vapor-bath.

It is next to impossible to do more than lay down general rules in the treatment of any given complaint. The treatment must be changed from day to day, according to the state of the patient, the nature of his disease, and the powers of his constitution. One day, using cold water, sweating and douche; at another time, substi-

tuting the wet sheet, chilled or tepid water; and again, warm or hot water; at other times, doing nothing, or next to it. In fact, it resolves itself to this: all depends upon the knowledge and tact of the practitioner; and it requires study and knowledge of all diseased states, the powers, properties and combinations of the remedy.

In pure, soft water is found the true "fountain of youth," and I invite all without distinction to come and freely partake of its benignant healing. To the young especially I commend an intimacy with the bright, sparkling element, for I greatly prefer prevention to cure; and it is a pleasure to me to teach the plastic and untainted mind of ingenuous youth how to preserve the bloom of early freshness and beauty, and how intimately connected are physical and mental purity and health.

CHAPTER XII.

SOME DISEASES WHICH ARE CURABLE BY HYDROPATHY.

A BODY can be healthy only when all its parts are in their normal condition, and achieve the work given them to do without pain, pressure, or tension. But all the parts should also possess the form best adapted to their purpose, which likewise corresponds to our ideas of beauty. Where the external form is abnormal, influences have been at work to alter it. But manifold observations are necessary to determine the normal form in all cases and in all details: first of all, really healthy persons must be sought for as objects of study for the forms. But it has now become well-nigh impossible to find such. To be sure, we speak of strong, healthy persons, and many declare that they belong to this class; but if we inquire more closely, each one has some trifle—as he expresses it—some trifling pain, or an occasional headache, or a toothache now and then, or something or other, which proves that absolute health is out of the question.

A healthy person always feels perfectly well; he knows nothing of pain or discomfort, so long as they do not come from outside; in fact, he never ought to feel his body. He delights in work, and enjoys his activity until he grows tired, after which he again finds full enjoyment in sweet repose.

A healthy man is not troubled by family cares and anxieties, for himself he feels strength to provide for his

loved ones. A healthy mother cherishes her family with zest, for she can nourish her little ones from the beginning, and if her darlings are healthy too, what a blissful life is theirs!

On Fevers in General.—Febrile diseases are of frequent occurrence: the symptoms of fever are therefore well known to all, and may be readily recognized; but it is more difficult to describe a fever, or distinguish it at the commencement of the disease with which variety it may be classed.

I cannot enter into scientific theories of the nature of fevers, far less discuss the question “how they originate,” or run through their various stages. These scientific explanations would certainly not be out of place; but I hope to be more useful to the public in confining myself to the outward signs of fevers, and by pointing out their causes, leaving hypothesis and theories of the nature of the disease to more speculative minds. The prominent symptoms of fever are affection of the head, languor, a sensation of weight in the limbs; changes in the temperature of the skin from heat to cold, whilst that of the surrounding atmosphere is moderate and remains unchanged; rigors in various degrees, from shivering to chronic spasms; the nails and lips are livid, and the skin is usually pale, cold and dry; the mouth and tongue are parched and dry, and the thirst is excessive. More or less heat, accompanied by rigors, next ensues; the skin now becomes hot, red, and tumefied. With the appearance of the heat, all the symptoms of fever increase. In addition to these various derangements of the skin and other excreting organs, delirium and hallucination make their appearance, and remain

not unfrequently until recovery gradually ensues, or the disease assumes another form.

The exciting causes of fevers are manifold, as overstimulating, over-nutritious diet, exposure to cold northern and easterly winds, suppressed exudations of blood, excess of exercise, colds, abuse of spirituous liquors, contagion, &c. Amongst the external causes, we may reckon impure air, malaria, the effluvia generated in sick wards, occasionally in ships, residences, &c.

During the treatment of fever, the patient must abstain from meat, butter, cheese, eggs, all stimulating food or drink, and observe a strict regimen. His food should be cold, *in but few cases* warm. His beverage should be solely and simply pure fresh water. The air of the sick room must be pure, dry, and in no case too warm. Everything is to be avoided that could excite the patient, bodily or mentally. Evacuations should be secured daily. The patient should lie on a mattress, and the linen is to be frequently changed, especially where there is much perspiration. Uninterrupted sleep is not only beneficial but indispensable for fever patients, especially where they have been deprived of their rest for some time. Visits or conversation, which might disturb the patient, are interdicted; he should never be awakened, even to take nourishment or to obey a medical order.

Inflammatory Fever.—This species of fever occurs chiefly in the young, plethoric and robust; it rarely attacks old people. The disease commences with shivering, which seldom lasts longer than one hour; this is succeeded by heat and dryness of the skin, extending over the whole body, accompanied by brightness of the eyes and a flushed countenance. The pulse is full, hard, and quick, the mouth and lips are parched, and the thirst

becomes excessive. Respiration is, during this stage, hurried and laboring; there is no exhalation from the skin, the urine is passed in less quantity and is of a high color. There is in most cases constipation. Sleep is disturbed, and the patients are generally delirious; often waking with starts.

The most frequent cause of inflammatory fever is exposure to cold, during the prevalence of dry winds, after the use of spirituous liquors, and, in women, upon suppressed menstruation. The treatment of this fever is very simple. On the first appearance of febrile heat, the patient is to be wrapped in the wet sheets, in the manner before described, and wet bandages are to be applied to his head at the same time. The latter are to be changed more frequently than the former where there is violent headache, or determination to that part. The sheets must be repeated, according to the degree of fever, every half-hour or hour. In slight cases a change once in the hour will suffice. If the patient feel relieved after three or four applications, and his head be clearer, he may then be washed with cold water of about 55 degrees of Fahrenheit.

Thirst should be at all times relieved by cold water. In some cases patients are unable to express their desire for water; they must then be urged to drink, especially if the skin remain hot and dry. If, after ablutions, the fever again appear, it must again be combated by the wet sheets, by night or day. This proceeding is to be repeated as often as the fever, dryness, and heat of the skin require it.

During the process of sweating, the patient should be allowed to drink frequently, but not so copiously as to check perspiration.

When the patient has passed several hours in a state of perspiration, and he can no longer bear his position, he should be washed with water at 66 degrees of Fahrenheit; laid in a fresh bed and lightly covered, when the skin will generally resume its activity.

During the whole course of the disease, the bowels should be kept open, by clysters if necessary. When the patient has regained his appetite, his nourishment should consist, for the first few days, at least, of weak broth and other light food.

Gastric Fever.—This fever is met with most frequently in summer and autumn, as a consequence of the derangement of the digestive organs by unwholesome food, exposure to cold, &c. The precursors of the disease are generally headache, vertigo, loss of appetite, an aversion to food, flatulence, nausea, vomiting, and constipation. The first attack of the fever is generally ushered in by a rigor, recurring perhaps several times; this is followed by headache, heat, and great thirst. Sleep is interrupted; the tongue white, becoming in the course of the disease yellow, or brown, coated and dry; accompanied by an unpleasant, faint putrid, acid, or bitter taste. The fever has the peculiarity of increasing during the night, whilst it is scarcely perceptible during the day; and, generally speaking, it terminates with perspiration in the morning.

The causes of gastric fever are irregularities in the diet, where digestion is weak; indulgences in animal food, and in the use of spirituous liquors; exposure to heat or cold, and, lastly, mental emotions.

Where the malady is caused by overloading the stomach with fat animal food, strict diet is above all considerations indicated. The patient should drink

water plentifully, and take much exercise in the open air.

Where this proceeding does not suffice, he should wash the entire body with cold water every morning, again an hour before dinner, and take a sitting-bath at 59 degrees of Fahrenheit, of three-quarters of an hour duration, one hour before going to bed.

Hydropathic treatment will always cure these fevers; nor have I ever seen them assume a typhoid or nervous type, although they are seldom cured within three or four weeks.

The patient must lie in a dry and cleanly room, change his linen frequently, and avoid all mucilaginous food. The chief treatment must be directed towards the stomach and alimentary canal. By copious water-drinking and lavements, the organs should be purged of impurities. Where such endeavors are successful in a few days, and the mucus is cleared from the digestive organs, the fever and nocturnal sweats will yield to the use of wet sheets.

In cases complicated with costiveness, where the evacuations are forced, and of a mucous character, three to four injections daily may be added to the former treatment, and two sitting-baths to be continued twelve minutes only.

Catarrhal Fever occurs only as a complication of a catarrh, or cold, and frequently runs through its stages without danger.

The hydropathic treatment of catarrhal fever is more simple than the disease itself. The most prominent injunction is, that the patient remain in a cool uniform temperature in the open air, if possible. When the weather prevents this, he should remain in a room at a temperature of 59 degrees of Fahrenheit, until the weather is more favorable.

At the commencement of this fever, the patient should wash the entire body in the morning immediately after rising, and in the evening an hour before retiring to bed, with water at 59 degrees Fahrenheit. Where the fever is rather high, these ablutions will not suffice; they must, therefore, be preceded by one or two applications of the wet sheets, morning and evening, in which the patient should become thoroughly warm.

Constipation, if present, must be overcome by tepid clysters.

The diet must be simple, cool, and should consist chiefly of cold vegetable food. The sick-chamber must be kept cool, as we have already observed, and the patient should take as much exercise as possible, for the most part in the open air, even in winter-time.

Influenza, or la Grippe, is very closely allied to catarrhal fever. The symptoms have much in common with catarrh; they are: dryness of the nose, hoarseness, and a sensation of dryness in the trachea, extending downwards to the chest, and at the commencement of the disease a dry cough. Head affections are more severe in this case than in catarrhal fever, and the patients complain of fatigue and vertigo. This disease is epidemic; its cause therefore is a peculiar state of the atmosphere recurring at certain periods of time, and spreading rapidly. The treatment of a simple form of this disease, resembles that of catarrhal fever. At the commencement of influenza, a more cooling plan must be adopted than in the latter fever, because the head is more severely affected. Cold applications to the head frequently renewed, are therefore indicated. The patient should frequently wash the mouth, and occasionally draw warm water up the nostrils.

This treatment, accompanied by the internal use of water, is to be continued for the first three days by day and night, according to the severity of the case. In this manner the disease is frequently arrested in its progress; and many patients attacked by influenza, are restored to health at the expiration of the third or fourth day; whilst in ordinary practice it runs through all its stages.

Intermittent Fever.—This fever is denoted by certain paroxysms, returning at definite periods of time. During the intervals, the patient is free from all symptoms of morbid action.

It is difficult to give a correct delineation of this fever; but its attacks are marked by a succession of heat, cold, and sweating. The cold stage is generally the first observed. It is ushered in by a sensation of cold in all the extremities, which become livid; this symptom is accompanied by chills and shivers, &c.

Where intermittent fever is not severe, and is caused, perhaps, by biliary or mucous matter in the stomach, our first attention must be directed to the removal of these impurities from the digestive organs. For this purpose the patient must drink warm water abundantly, the effects of which will be acid or bitter eructation, nausea, or vomiting. If vomiting should not ensue, clysters should be used without delay of water at 66 to 68 degrees of Fahrenheit, and the abdomen should be frequently rubbed with the dry hand or flannel. If this treatment be followed by an evacuation of thin motions, the diarrhoea should be encouraged by a moderate use of water internally, and a continuance of the injections for one or two days.

These copious evacuations of alvine impurities by the

stomach and alimentary canal, aided by a moderate regimen and light food, usually effect a perfect restoration to health.

Nervous Fever.—A series of premonitory symptoms often precedes the appearance of the disease itself; the precursors may, however, be wanting; the most usual are, a sense of oppression, weight and pain in the head, languor and weariness of the whole body, interrupted sleep, distaste for occupation, and loss of appetite for a considerable length of time previous to the attack.

It is impossible to give a faithful delineation of this fever, and the reader must rest content to find its most common forms more fully described. The exciting causes of nervous fever are various. Among the most prominent are peculiar changes in the air; hence the frequent occurrence of this disease in marshy districts, damp residences, hospitals, and such localities where vegetable or animal matter is passing into a state of putrefaction.

The treatment in the first stage must be guided by the degree of fever present, and by its character. The more violent the inflammatory symptoms, the oftener the wet sheets and the bath should be repeated.

The action of the bowels requires especial attention; if it be tardy repeated clysters of cold water will be necessary. If the cold water return without producing the desired evacuation, a lavement of lukewarm water may be tried.

Another species of nervous fever is typhus. The precursors of this fever resemble those of the former, with the exception that in typhus the thirst is greater, and that diarrhœa prevails chiefly at night.

Typhus attacks chiefly the plethoric, robust, and

young. The exciting causes are nearly the same as those mentioned in former references to fevers. The treatment of this dangerous disease is guided partly by the stages, partly by the peculiar symptoms of the fever. At the commencement of sickening endeavor to remove the headache and nausea by copious potations and clysters, and if possible give the disease a different turn.

Combat determination to the head by repeated cold wet cloths, and where these will not suffice, well wrung bandages should be applied to the feet; to be covered with dry cloths, and to remain until they are quite dry. The same treatment applies to all parts of the body affected with violent pain, congestion, or inflammation.

On Inflammations in General.—Inflammations are very numerous. They appear with or without fever, to which they bear great resemblance, and are the concomitants of many diseases.

The functions of the organ inflamed are always more or less impaired, and the part generally appears swollen, more dense and firm, its color is of a bright red, its temperature increased; in the majority of cases there is pain; in some this symptom is entirely wanting.

The causes are various, as sudden changes of temperature, the abuse of acid, highly seasoned or very nutritious food, and spirituous liquors; immoderate corporeal exertion, violent mental emotions, suppressed eruptions of the skin.

Inflammations of vital organs, *e. g.*, of the brain and lungs, are always fraught with more danger than those of less important parts.

Diet must be rigidly observed, and should consist of food which is not very nutritious, and cold water solely as a beverage.

Inflammation of the Brain.—The forms of this dangerous disease are very different; some of them may prove fatal soon after their appearance; others, the chronic forms, at a later stage.

The general symptoms are: beating of the arteries in the head and neck, affection of the head, and heat with redness and swelling of the face, hardness of hearing, intolerance of light and a contracted pupil. The patient is noisy, screams, and evinces enormous muscular power; he has a hard and wiry pulse, a hot, dry skin; there is vomiting, constipation, and the urine is of a dark red color. In the further course of the disease, the patients not infrequently become partially or totally blind and deaf; there is a peculiar tremor and convulsive contraction of the limbs indicative of the severity of the disease, and of congestion of vessels of the brain.

Inflammation of the membranes of the brain is more frequent in old people, whereas inflammation of the substance is peculiar to youth. The primary causes of the disease are various, as a predisposition to the attack, or a premature development of the brain. The exciting causes are, injuries of the head by pressure or a blow, sudden changes from heat to cold, exposure of the head to the powerful rays of the sun, indulgence in spirituous liquors, fatiguing mental occupation, suppressed menstruation, erysipelas of the face, rheumatic and gouty attacks, suppressed cuticular eruptions.

To accomplish the cure of these most dangerous cases, the treatment will require the greatest attention and activity on the part of the hydropathist and the nurse. The hair should be immediately cut from the spot affected, and applications of cold water laid over the whole head, and frequently changed. They should never

attain a degree of heat equal to 66 degrees of Fahrenheit. The temperature of the water used should, if possible, be under 46 degrees of Fahrenheit, and never above 50 degrees of Fahrenheit. In summer this temperature can only be obtained by adding ice to the water. It is advisable to place several large napkins in cold water in readiness to be applied to the head, that the applications may follow each other in rapid succession. The time for each renewal of the napkin depends on the degree of heat; as a rule, it should be every five, or at the utmost every eight minutes. As long as the inflammation lasts, the bandage should never become warm, for success rests chiefly on this point.

If within twenty-four hours no favorable symptom appears, pour cold water over the body of the patient, and wrap him immediately afterwards in a well-wrung sheet and several blankets, endeavoring in this manner to produce perspiration. The patient must lie with his head considerably raised; the wet napkins and the potations must be continued as above ordered. If the patient feel relief in envelopment, especially if perspiration ensue, he should be left in it as long as this condition lasts, and not before perspiration ceases should the tepid water sponge-bath be used.

Inflammation of the Eye.—There are a number of inflammatory states of the eye and its appendages, which should not be enumerated separately nor treated locally alone; for in the treatment we have not only to take into consideration the morbid state of the organ itself, but the condition of the body generally. This is the case in rheumatic, scrofulous and syphilitic inflammation of the eye, where the chief attention must be

directed to the primary disease, and the treatment at the same time suited to it.

The patient's room should be cleanly, neither too warm nor too light; his food easy of digestion. He should abstain from all spirituous liquors, and wash the eyes frequently during the day, as also the face, throat and neck, with cold water. He should, moreover, apply well-moistened bandages, consisting of clean linen folded several times, to the eyes, and renew the applications as soon as they become warm. Eye-baths of water at a temperature of 66 to 73 degrees of Fahrenheit, four or five times a day, during three to six minutes, will be found of great advantage. Copious potations of cold water, and clysters where there is constipation, cannot be sufficiently recommended. When the inflammation is relieved, it will suffice to wash the eyes frequently.

Inflammations of the Throat.—There are many varieties of inflammation of the throat, but I will only mention the more common forms:

CROUP—This inflammation of the larynx and trachea, is distinguished from the common inflammation of these parts by a predisposition to the formation of false membranes lining the trachea and larynx, which cause difficulty of breathing, a sensation of tightness in the throat, and, if not relieved, all the symptoms of suffocation.

This very dangerous disease is confined to a definite period of infancy, beginning at the second and terminating with the sixth or eighth year. After this period the disease seldom makes its appearance. The attack comes on generally in spring or late in autumn, and may be referred to a peculiar state of the atmosphere during these seasons,

Three stages may be distinguished in the disease: the first stage, that of the premonitory symptoms, is ushered in by a slight catarrh; hoarseness, fretful and languid, especially towards the evening; to this is added a dry, abrupt, hollow, barking cough, accompanied by a slight degree of pain, by irritation, and a sensation of burning in the trachea.

It is advisable to wrap the patient in wet sheets, and apply applications to the throat; thus to cause perspiration for a few hours, which is to be followed by an ablution.

Inflammation of the Lungs.—This inflammation is preceded by premonitory symptoms of a short duration, or these may be entirely wanting. It commences for the most part suddenly, with a violent rigor, followed by heat. To these symptoms are soon added pain in the chest, which may be confined to one side, or attacks both sides at the same time, shortness of breath, cough with or without spitting of blood, restlessness, palpitation of the heart, and determination to the head.

The causes favoring or producing this disease are: loud continued talking, singing, inspiration of impure air charged with corrosive vapors, injuries of the lungs, and inflammation of adjacent parts, &c.

Inflammation of the lungs may be classed among the most dangerous diseases. To ensure success in the treatment of all serious affections, correct diagnosis, caution and experience are essential conditions.

At the commencement of the disease, the patient should be wrapped without delay in a damp well-wrung sheet, a wet bandage (less wrung out) should be applied to his chest, and he should be laid in bed, with his head raised; hot water must be administered from time to time.

When this treatment produces perspiration, quietly await its cessation, place the patient in the most convenient position, and unloosen the envelopment where it is too close, because from this period the sheets are not to be changed.

During the course of the disease, and during convalescence, the patient must keep in bed and remain perfectly quiet; his diet should be rigid, consisting at first of rice, water-gruel, &c.; thirst should be allayed by tepid water, or rice and barley water. The patient may be gradually allowed to proceed to cold ablutions, and to more nutritious diet in the later stages of convalescence only.

Inflammation of the Stomach.—The symptoms of this disease differ according to the various causes in which it originates. It may be reckoned amongst the most dangerous forms of inflammatory disease. In inflammation of the stomach, violent pain, heat and swelling in the region of the stomach, are first experienced; to these symptoms are added, spasmodic contraction of the pharynx and stomach, hiccough, nausea, even vomiting, great sensibility in the region of the stomach, affections of the head, giddiness, fainting, delirium, great debility, and sensation of weight in all the limbs. If fever be not present at the commencement of the attack, it very soon appears and becomes very violent.

The causes of inflammation of the stomach are various: it may arise from pressure, a blow, injuries to the stomach in general. Indigestible stimulating food or fluids suffice to inflame a weak, delicate stomach; the causes, however, are far more frequently extraneous indigestible substances, corrosive poisons, metals, &c., which may have been swallowed,

If the disease makes its appearance after the use of indigestible stimulating food or liquors, after an injury received in the epigastric region, or enervation of the stomach, immediately place the patient in a half-bath, at a temperature of 77 degrees of Fahrenheit, the water of which reaches above the stomach. During the bath he should drink hot water in small doses, but frequently.

Inflammation of the stomach, caused by indigestible substances, poisons, &c., in the stomach, requires active treatment immediately. Begin by exciting vomiting; for this purpose a feather may be introduced into the throat, at the same time drink tepid water plentifully, to promote and facilitate vomiting.

Afterwards give cold water to drink, and a hot water injection every half-hour or every hour.

If the inflammatory attack continue to decrease in violence, and the patient feel composed, the change of bandages, need not be so frequent, and the cloths may be better expressed. The potations must be indeed continued in this case, but more moderately; mucilaginous drinks must be substituted subsequently for water, and serve also as nutriment during the first days of convalescence. When inflammation is nearly abated, the patient must be wrapped in a wet sheet, and remain at least one hour, or perhaps longer, to restore the interrupted action of the skin.

Inflammation of the Bowels.—This affection is one of the most violent and dangerous forms of inflammation, and is distinguished by a variety of symptoms, differing according to the seat and extent of the disease. The disease may be said to be characterized by a fixed continued burning pain in the vicinity of the seat of inflammation. The most essential symptoms are an

acute burning sensation in the region of the umbilicus; this cholic pain is at first transient, afterwards fixed, and extends subsequently over the whole abdomen, which becomes extremely sensitive, hot and tumefied.

The causes of inflammation of the bowels are the same as those of inflammation of the stomach. Besides mechanical and chemical irritation, hernia and cold may give rise to the disease.

Inflammation of the bowels, originating in colds, should be combated at first by clysters, of moderately warm water, and by well-wrung cloths, applied to the whole abdomen, by covering the body sufficiently, and by drinking water in small quantities, but frequently.

Tepid, sitting, and half-baths are chiefly to be recommended in inflammation of the abdomen, arising from suppressed discharges of blood, menstruation, hemorrhoidal bleeding, &c. In these cases, the bath before described should alternate with the use of warming bandages to the abdomen, until relieved, and the suppressed discharge returns. Potations and clysters are to be added to the use of baths.

The Treatment of Wounds.—Even among those who recognize most readily the excellence of the water-cure in all other diseases, the belief is generally disseminated that wounds—interior and exterior injuries—cannot be cured with water in a natural manner, but require surgical and antiseptic treatments.

When I assert that injuries can be almost painlessly cured with water in one-third of the time required by the medical, so-called antiseptic, treatment, and moreover in such a way that such disfiguring scars are in no case left behind as is, unhappily, always the case after surgical operations, this assertion rests on a long succession

of successful cures and a large number of practical experiments, not a single one of which was unsuccessful.

As soon as one receives an external injury, whether it be a cut, a contusion, or a burn, the system immediately sets about repairing this injury, or healing it.

Through this process the system assembles a great mass of material for the cure, to make good the injury as soon as possible. If we aid this effort of the system in a proper manner, the cure is brought about with a rapidity and painlessness hardly considered possible.

In perfectly healthy bodies even the severest injuries heal in an astonishingly short time. To-day, unhappily, but few really healthy persons are left; for although many may be thought perfectly healthy, our science teaches otherwise, and admits of no deceptions.

Let us look around us in Nature, to again gather proofs for these new assertions.

I have had ample opportunity for observing how wounded animals, which one could take it for granted were healthy, heal their wounds themselves.

I have seen that animals when left to themselves, without any external aid whatever, were often thoroughly healed in an incredibly short time. I have often observed such cases, and was always struck by the immense difference observable between these cures and those of human beings, although the latter command all the resources of science and affectionate care. Nothing has more stimulated my reflection, and awakened within me an irresistible desire to investigate this secret to the bottom, than this circumstance, for I shared the general opinion that in case of injury the poor animals were far worse off than human beings. Now my observations of Nature having changed my opinion, and shown me

that healthy animals have by no means so much to suffer from injuries as most human beings with antiseptic treatment, and that cures are affected by them in one-third of the time needed in hospitals and clinics.

I can understand why surgeons, when employing all the various antiseptic remedies, as carbolic acid, iodoform, corrosive sublimate, cocaine, etc., and ignorant of the success of the water-treatment, hold their method of treatment to be perfectly natural, though they have deviated so far from the right path, is because they do not know of cures according to Nature.

The whole method of wound treatment in the clinics plainly proves that the processes and vital phenomena of the body have not as yet been properly understood.

As soon as the body receives a wound through a cut, stab, bruise or tear, the larger and smaller blood-vessels thus opened empty their blood outwards, by reason of inner pressure, until this pressure is counteracted by external counterpressure.

As soon as the inner pressure is opposed by an equal one from without, the bleeding instantly ceases. The pressure of the blood is greater or smaller according to the size and depth of the wound, and according as larger or smaller blood-vessels have been injured. Whenever possible, all tying-up of blood-vessels must be avoided, because by tying the veins and arteries the organism is trespassed on in a manner which can never lie in the intent of provident Nature, and always impedes the normal circulation.

There is no more suitable means than to bandage the wound with wet linen in several folds so carefully and densely, that the inner pressure of the blood, and with it the bleeding, is counteracted. If feasible, hold the

wounded part afterwards in cold water until the pain is allayed, which may take several hours. If not feasible, the part must be cooled by letting cold water drop either continuously or at short intervals upon the compress, so that the latter is kept cool.

The water-compresses themselves must be so folded as to project not more than an inch beyond the edges of the wound. This is important, because if the compress is bound around the whole limb or part of the body, the circulation of the blood is impeded, while its unhindered course is of the highest importance for the healing process. As long as they cool the body, no severe pains will arise. But whenever the compress is warmed by the warmth of the body, the heat and at the same time the pain in the wound will immediately increase; consequently the compresses must be renewed by redipping them and washing them in cold water as often as the pain is felt. Pain should always be the signal for action.

A most potent influence on every healing process is exercised in the treatment of wounds by the diet observed. The less food the patient partakes of, and the less irritating the food chosen, the more favorably the process of healing goes on. Graham, or whole wheat bread, fruit, and water form the best diet; all warm and irritating foods are especially to be avoided.

When possible, apply several hip-baths and friction sitting-baths daily. In this manner wound-fever is prevented with absolute certainty, and at the same time an alleviation of the local feverishness present in all wounds is effected. Moreover, the vital powers of the entire organism are stimulated, and thus accelerate the process of healing in the most efficient manner.

It is of the first importance for every soldier, or those exposed to danger of wounds from shot or ball, to know precisely what to do in such emergencies; for the time lost before help arrives is often the cause of death, or at least the cause of an amputation which renders the subject a cripple. When the wounded lie for hours before help arrives, it is no wonder—especially in case of antiseptic treatment—gangrene supervenes; and amid the general helplessness and ignorance of the nature of life and its conditions, and of the manner in which the healing of wounds can in any event be effected through the organism itself, there is no other resource than amputation. *This only heals wounds by inflicting far deeper ones, and by marking the victim of its mode of treatment for life. It fights fire with fire, and creates great misery.*

Hitherto it has been the belief that the ball or fragments of the projectile, if they still remained in the body, must positively be taken out to avoid injury to the system. *This is a monstrous error, which has already cost many thousands their lives.*

If an attempt is made to draw out the ball by its channel, not only is the entrance-way and the entire channel of the wound swollen, but the interior tissues, before so elastic, no longer yield as at first, because they are tense, and have to be far more torn and injured than at first. *The projectile itself is far less dangerous to the body, than the mania for getting it out at all hazards.* The system soon renders this leaden mass of foreign matter quite harmless, first surrounding it by a watery accumulation, changing in time to a firm capsule enveloping the projectile.

In the case of a gun-wound, therefore, the attention

must be chiefly turned to preventing heat in the wound, and to stopping the bleeding as heretofore directed.

Wounds received in war, or in some other way by external injury, can be healed quickly in this way. It is otherwise with those open sores which, continually suppurating and disgusting in smell, invade all members and parts of the body, and are nothing less than putrefaction going on by inches, whether the wounds are, according to the diagnosis of school medicine, of a cancerous, tuberculous, syphilitic or other nature. Hitherto they have been incurable as far as allopathy or homeopathy was concerned, and will continue so forever, exactly like mental diseases and other final stages of disease. Even though medical treatment may succeed in arresting the process of decomposition by means of powerful medicaments, or in bringing about another stage by thus forcing back into the body the foreign matter working its way out by fermentation, the condition is only rendered worse thereby, and at the next opportunity the sore breaks out anew in another place. Such sores frequently have not the painful character of other injuries, but everyone knows that their appearance is due to a more deeply seated chronic disease, a heavy encumbrance of the system with foreign matter, which drags on for years or until death. Mankind has felt terror of such sores ever since it has known these disgusting companions. Innumerable suicides have been and are daily committed, the cause of which is to be sought in such diseases. These sores have become a scourge to man—a scourge and a plain-spoken witness to his systematic opposition to our all-wise mother Nature in his daily actions and mode of life. If we inquire the cause the only answer will be, that they arose simply from the

encumbrance of the system with foreign matter, but are invariably an advanced stage of earlier and different stages of disease. In many cases these final stages have been brought about by the pestilent inoculation with so-called medicinal remedies, which are always vile poisons for the system, and which have been employed in earlier years to suppress some other disease. Such diseases, against which all medicaments are powerless, are the necessary consequence of such unnatural regulations as vaccination for small-pox, and of the employment of all other poisonous remedies supposed to effect cures. Through such remedies, regarding whose abiding-place in, and real effect on, the system the learned (?) profession is still much in the dark, the germs are laid years beforehand of such an extreme poisonous permeation of the system as these open sores indicate. It is, in particular, the so-called protective vaccination for the small-pox which operates to poison the whole human race, and the effects of which often appear years later, for which reason they have quite escaped the notice of the modern school. Unhappily, the very nature of the vital power and vitality is a new field still too little explored by the modern school, and the latter therefore learns nothing of all the ruinous effects brought about in the organism by those poisons given as medicaments—not showing themselves on the day when the same are given, inoculated, or rubbed in, but years and decades afterwards.

Whoever considers the matter will readily comprehend this impregnable principle, especially if he reflects, that every medicament is a poison, a foreign substance, highly inimical to the system, and on being taken into the system causes efforts of the entire vital power to

counteract it, which are the more intense and rapid in effect the greater the vital power.

Snake-poison will cause death in one case, and merely a violent fever in another. The danger does not always lie in the bite, but in the state of the person at the time bitten. It is the same with blood-poisoning, which is of so frequent occurrence after "highly successful" operations, one patient falling a victim to it and another escaping. It should be remembered that all these cases arising from the introduction of a poisonous substance into the blood by the bites of snakes and dogs and the stings of insects, are nothing more or less than blood-poisoning, and consequently all belong to the same class.

All so-called cases of blood-poisoning, whatever the cause begin with a swelling of the injured part, which is always accompanied by great heat (fever), even though only local at first. The subduing of this fever is the first task, which must be accomplished as soon as possible by local cooling. When the swelling spreads, and threatens neighboring parts of the body, danger is imminent, and it is best to put the part affected in cold water, cooling it thoroughly; or, should this not be possible, apply wet compresses. First of all, the part should be made to perspire. When circumstances admit, remarkable success may be obtained by the use of steam-baths local or full, followed by friction. Through this mode of treatment the swelling will be easily subdued, together with the dangerous fever. Should the injured parts become hard as well as swollen, a rapid and normal softening can be brought about by local steam-baths; the poisonous foreign matter being thrown off with the perspiration. The treatment must be continued until all danger is passed.

There are two classes of errors in water-cure to which I would particularly call attention, viz., the ambitious and the reckless or careless. The first class obtains with young and enthusiastic practitioners, and such are often the product of much faith and little experience, though occasionally these errors may be found where we least look for them. The rage for experiment is very dangerous where there is little skill and judgment.

Another grave error in hydropathic practice, is using too much and too cold treatment for delicate and cold patients. Such are sometimes ordered to take long cold foot-baths—a most insane practice. The indiscriminate use of foot-baths is about equal in folly to the large and indiscriminate water drinking prescribed by some doctors. Both are useful at times, but both are very extensively made grievous abuses. The action of the skin is impeded by too cold baths, too long continued, and terrible ulcers are often the consequence, or congestion and morbid conditions of the internal viscera are induced which, in many cases, prove fatal.

Excessive water drinking brings great evils upon the system, overtaxing and breaking down the vital powers, and inducing numerous ills which I cannot now particularize.

Water-cure is not necessarily confined to cold or warm water, but the physician should have skill to administer both properly, or he carries the black flag on the ocean of water cure, and should be treated accordingly.

“The more of a good thing the better,” is an old maxim, which may be very mischievous in some applications. Cold water is a good thing, a blessed thing, but people may die of it without being drowned in it. The public have to learn that there are no two water-

cure physicians who are certain to take the same view of a case, and that there may be fools in this profession, as well as in other modes of practice. What is most desirable is that the people should learn to reason correctly, and come to right conclusions themselves. The grave of quackery is dug as deep and as sure as the people are enlightened.

Hobbies are always to be distrusted. If a man tells me that *all* his patients take foot-baths, or a douche, or short, wet sheet-packs, I consider that man anything but a water-cure physician. If he denounces sweating on all possible occasions, and declares that the douche should no longer be used in water-cure—if he is determined on a general application of the “hunger-cure” to *everybody*, why I may as well write him down a fool, as I think him, as to go about hunting for words to express the same thing more delicately.

Different cases require different treatment—sweating in blankets is a most admirable treatment for some patients, whilst for others it would be dangerous and worthless.

Water-cure physicians should be governed by principles—not rules. They should reverence themselves more that they are able to cure disease than because they have M. D. attached to their names.

CHAPTER XIII.

HEAT MADE CURATIVE, BEAUTIFYING AND STRENGTHENING.

IN offering to the medical profession and the public at large, this chapter on the Turkish and similar Baths, by an author not of the profession, it is necessary, in the first instance, to guard against any hasty conclusions; or, on the other hand, the rejection of statements that may seem at variance with therapeutic science.

As regards the use of the baths of the ancients in a sanitary point of view, or as an habitual luxury of cleanliness unattainable to the same degree in any other way, doubts will exist only in the minds of those who have not experienced the enjoyment produced by the operation, or the sensations of elasticity and vigor it leaves afterwards.

As health can be appreciated only by disease, and disease by health, so it is with reference to cleanliness and filth. Those only who have gone through the bath can say, "Now I know how filthily I have been." But until you put a man through that process, he will be offended if you render him the service of telling him that he is filthy.

Cleanliness is a matter of self-examination, not of external seeming. You must acquire the ideal standard of cleanliness before you can acquire the habits of refined people.

Of the value of the vapor bath, there can be no doubt,

as all those who have been in it must be witnesses to.

It operates beneficially in many ways, a few of which, together with some auxiliaries, I will mention.

1. *Bringing the skin into action*, and so evoking its latent powers, as the means of reinvigorating the constitution and throwing off disease.

2. *Of heat independently of that of the skin* and its effect upon the morbid condition of the blood.

These are the two salient ideas which I have to present, affording the means of cure severally for chronic and acute disorders. But I have not touched upon—

3. *Endosmose and Exosmose*, or that law of Nature by which the contents of a vessel are interchanged with the contents of an external medium. This is now practiced in tanning. Instead of laying, as formerly, skins and tan alternately in layers, now they sew up the skin and put the tanning matter outside. You would suppose that if you put the tanning matter on both sides of the skin it would be the best means of impregnating the skin, but it is not so; and what formerly took months to effect is now done in a few hours. This is by Endosmose. This law of Nature is the source of vegetation. It is also the motor in those mysterious functions of our frame where we are unable to trace organic instrumentality. If you take a bladder and fill it with water, adding some foreign matter, such as vermilion, and if you put that bladder in a vessel of water, presently you will see the water all around colored. The foreign matter will find its escape out of that bag the moment you immerse it in water. The same will happen if you employ thin slabs of marble. If you look at the human body as a bladder, and expose it to the same action by giving it an external medium, and if you facilitate the

transmission by a high temperature, you will see how, by the bath, you can extract from the body its foreign and incidental contents. Exosmose generally acts from the denser to the less dense medium, as if in order that more should benefit thereby, and discharge the matter which is contained within; say that the body contains mercury which may have lain there for years, apply the external medium and you can draw it out, and that too whilst the perspiration pouring out facilitates its exit. I was led to connect Endosmose with the action of heat by one day seeing a butcher strip the skin from off a sheep. It came away snow white, without tincture of blood; yet the blood circulates in the skin. A word calls the instantaneous color to the cheek—the tell-tale blood. Endosmose, then, enters into the mechanism of the circulation, and it is at the moment of this mysterious flight that the perspiration is dropped. This is a third branch.

4. *Electricity*.—You know what it is to isolate a chamber for the purpose of making experiments. You never isolate a chamber for the benefit of your bodies. I have an isolated chamber, and, when fatigued, I enter it, and am relieved, and in a few minutes competent to resume my work. I will not talk of negative or positive electricity, but this is sure and certain, that when a man is not in condition he is short of electricity; he is a machine, and is worked by means of it; he produces it for his need, and what he does not retain is conveyed to others.

5. *Actinism*, historically and constructively. The type of the bath ascends to primitive and unartificial societies. Therefore it was confined and dark. The Turkish bath is dark and gloomy, no sun comes in. The Roman bath originally was dark: at a later period it was light; they

had plate-glass, but there was no idea of letting the sun in. They had the idea of the sun playing on their naked person superseded his utility in the bath. I have ventured to add as an auxiliary to the vapor bath, the sun bath, so that when reclining on the couch in the hottest part of a room the sun streams in full upon the nude body, head excepted.

6. *Cleanliness*.—This can be obtained by no other process so effectively as with the vapor bath, and this alone is superior in curative effects for the sun and generality of maladies to the whole contents of all the apothecaries' shops in the world.

With these six distinct means of action, what a wonderful command is acquired over the whole of the phenomena of human life!

As a rule when a patient speaks to a medical man about the vapor bath, he has but one answer: "It is a capital thing, but"—pointing to his individual patient—"it will not suit you." He says what is not true, and then he goes on to flatter the self-love of his patient.

Medical science had not possessed itself of these means; and as they are the most simple and the most effectual—as they are of undoubted benefit in many diseases in which medicine has no pretention to interpose between patient and disorder, it follows that when a medical man perceives this new light, he also perceives his own previous darkness, so that there can be no acceptance without recantation. And thus it is that the matter has been viewed by the body of practitioners. Their instinct tells them that there is that in it which is incontrovertible; and that instinct is true. But they have another instinct, which is that they will lose their individual patients.

Why, it may well be asked, should the people of the United States deprive themselves of the admirable appliances, on the score both of health and enjoyment, to which all classes in many other countries and opposite climates have ready recourse. In Russia, the use of the vapor bath, in the manner to be hereafter described, is general, from the Emperor to the poorest serf; and, as Dr. Clarke, in his northern travels, truly remarks, through all Finland, Lapland, Sweden, Norway and the vast northern empire there is no hut so destitute as not to possess its family vapor bath, whither all the members of the household resort every Saturday at least, and every day in case of illness. Equally general is the use of the bath in Turkey, Egypt and Persia among all classes, from the Pasha down to the poor camel driver and porter, or the Arab boatman; in short, every one who can raise a few paras. Even the red men of our forests, the aborigines of this continent, have more fully appreciated the advantages of the bath than their civilized successors and supplanters of the white race.

In the historical sketch of the different modes of bathing and its auxiliary processes in ancient and modern times, which I am about to place before my readers, I look beyond the mere desire to gratify their literary curiosity.

Bathing may with great propriety be regarded as a practice not less congenial with our feelings of bodily comfort than conducive to vigorous health. We cannot doubt its antiquity, when we see it resorted to in every stage of society, from the wandering savage of the woods to the polished inhabitant of the city. The same instinctive impulse by which, during the oppressive heats of summer, man and animals are led to seek the shade,

and inhale with eagerness cool air, would prompt them to plunge into the nearest stream, as an additional means of refreshment and invigoration.

Bathing in the East.—As might be anticipated from the importance attached to it in a religious point of view, and the necessity in warm climates, of frequent ablutions of the skin, methodical bathing first began to be practiced in the East with all the artificial aids which refined sensuality could devise for procuring the enjoyment of varied sensations, as precursors to languid repose.

The Egyptians used warm as well as cold baths, though for ordinary ablution cold ones were preferred. In a tomb at Thebes, there is a painting in which a lady is represented as about to take a bath. She is surrounded by four female attendants, who are engaged in the various duties of disrobing her, &c. That bathing was regarded as a luxury as well as an observance of hygiene in ancient Egypt, seems to be proved by the circumstance of its being prohibited during times of general mourning.

Bathing Among the Greeks.—The Greeks, as we have seen, readily adopted the usages of bathing so congenial with their national love of pleasure and novelty; but, more sociable than their Oriental neighbors, and, at the same time, ever intent on mixing up the common affairs of life with Epicurean philosophy and patriotic pride, they joined their public baths to the gymnasia, so that athletic sports should be succeeded by bathing, and this again alternate with conversation on literature and morals, while the people were sitting or slowly walking under their long and finely sculptured porticos.

The obligations of Rome and the western provinces of

the empire to Greece for a knowledge of bathing on a large, and it may be said, complicated scale, are evinced in the fact that the names of the several divisions of the Thermæ are all Greek. Socrates, Plato and Aristotle talk of baths as in common use; and Hippocrates, about the time of the Peloponnesian war, recommends them in a variety of circumstances, both for the purposes of hygiene, and the cure of diseases. Plato, in describing his Atlantis, the lost island of the West, supposes that not only were there baths open as well as covered for each sex, but also for domestic animals.

Historically considered, bathing assumed the most importance when it became a part of hygiene, or that art by which all the agents of life and well-being are systematized, and their separate and conjoined effects distinctly described. Popular prejudices, it must indeed be acknowledged, at times usurped the place of sober experience, and led to a fatal abuse of cold bathing; as in the case of the Spartans, who were in the practice of plunging their new-born infants into cold springs. While pointing out the florid health and robust frames of those who grew up to adult age, these people forgot that it was owing to their very robustness that this severe treatment was tolerated, and that the tender and delicate sank under it.

Bathing Among the Romans.—The Romans at first imitators of the Greeks, eventually surpassed them and all other nations in the magnificence and extent of their baths.

Architecture, sculpture and painting exhausted their refinements on these establishments, which for their extent were compared to cities; incrustations, metals and marble were all employed in adorning them.

Russian Bath.—A Russian bath is for the most part constructed of wood. It consists of one large room, in which there is a stove, containing, besides fuel, large stones in a state of incandescence. Opposite to this, and at regular degrees of elevation, are two or three rows of benches on which the bathers sit and sometimes recline.

Oriental Baths.—But it is to the East that we must look for the most numerous and splendid baths. They are naturally places of great resort to a people who, like the followers of Mohammed in Turkey, Persia and Egypt, are enjoined by him to frequent purifications as a ceremonial of religion; and who, indolent by the nature of the despotism under which they live, seek in them a means of passing away a portion of their time, and of obtaining pleasing corporeal sensations when those of a higher character are denied to them.

Turkish Baths.—The public baths in Turkey are represented to us as elegant and noble structures, built with hewn stones; though, according to Buckingham, the approach to them is dark and mean. The inner chambers are capacious, and paved with slabs of the rarest and most beautiful marble. A Turkish bath consists of three, or sometimes only two apartments; the entrance is a spacious and lofty hall, well lighted, and having a fountain in the center; round the sides are high and broad benches, or raised galleries, slightly divided into compartments, and on which rich carpets, mattresses and cushions, are arranged. Here the bather undresses, and receives a loose wrapper or gown, and a napkin is put round his waist; he slips on, also, a pair of wooden sandals. Thus prepared he goes into the second room, which is of a moderate degree of heat, or

if there be but two, he passes at once into the bathing room proper, which is of an octagonal form, vaulted, and receives light from the top. Its temperature is about 100 degrees Fahrenheit. In the middle there is a marble estrade, elevated about eighteen inches, on which the bather stretches himself at full length, and is soon thrown into a profuse perspiration by the heated air of the room. During this time an attendant rubs and washes the skin with a hair brush, so as to cleanse it of all impurities he then kneads and moulds the body with his hand for a considerable length of time, and, if required, stretches the limbs in succession, so as to make each joint snap most audibly, and give a person unaccustomed to the operation, the idea that his limbs are actually dislocated. To this operation is added rubbing and washing the body with a lather of perfumed soap : an operation performed in one of the recesses or cabinets at the side of the room, where is a marble basin supplied by pipes with streams of hot and cold water, so as to allow of the bather giving himself a final ablution at such a temperature as may be most agreeable to him. These recesses have a heated marble pavement. There is a slight slope of the floor near the wall, by which the water falling from the body of the bather trickles down, and is carried off by suitable pipes. After the last washing he returns to the second or middle room, in which he stays a few minutes, covering himself with a dry wrapper, extending from the breast to the feet. Thus prepared, he issues out to the first apartment or hall, where he now lies down on a mattress for about half an hour, or until sufficiently cool to dress.

Nothing can be more luxurious than the private baths

of the wealthier and titled Turks. The rooms are lined with the finest marble ; the basins supported by columns with gilded capitals ; all the vessels are of gold or silver ; the linen is of the finest kind, and the sandals even are studded with pearls, emeralds and diamonds.

The Greeks, Armenians and Jews, though not in the habit of bathing so frequently as the Turks, are not backward in displaying considerable luxury in their establishments for the purpose.

The Persian Baths.—The Persian baths, in the approach to them and in their external appearance, as well as in the cleanliness, lightness and style of ornament of the first hall and undressing-room, are superior to the Turkish ; but in their internal arrangements and conveniences, they are by no means equal. The bather has to lie down on the floor in place of on an estrade : and he is merely well, though roughly scrubbed ; and subsequently the impurities of the skin are rinsed off in a large cistern, from which there is no running stream to carry off the foul water.

Egyptian Baths.—The baths of Egypt and India differ but little from the Turkish ones.

Some are for men only ; others, only for women and young children ; and some for both sexes—the men using them during the forenoon, and in the afternoon the women.

East India Baths.—In the East India bath, the visitors are subjected to nearly the same process as in the Turkish ones. The women are passionately fond of these baths, and often pass the greater part of the day in them, extended on a couch, and surrounded by slaves ; who gently rub with their hands their lower limbs, and sometimes the whole body, so as to produce the most delight-

ful sensations. It is, in fact, animal magnetism, with all the aids devised by voluptuousness.

Bathing in the United States.—The chief successors and supplanters of the Indians in North America—the Anglo-Americans—have not retained the fondness of the aborigines for the vapor bath. They imitate them in their love for hunting and pursuit of game, but omit the means of refreshment and invigoration after the fatigue incident to these exercises. Of late years, however, a salutary change is coming over us in this respect; and Hygeia is continually increasing the number of her votaries, who have recourse to bathing in their houses, and, during the summer months, at the sea-shore and the numerous mineral springs so bountifully dispersed over the country.

The resort to the public baths, that is to baths accessible to all for a moderate sum, is not by any means such as might be expected from the deficiencies at home and the consequently presumed demand for ablution. But as I have already said, we are improving in all our cities; and hopes may be entertained that the people generally, will, before a long period has elapsed, be able to enjoy the health-supplying aids of the Oriental and the Russian baths—and that in the very spots most needed, as in the neighborhood of large manufactories and wherever numbers are assembled for labor or mechanical employments. The means for procuring the requisite warmth for dry air baths, and of steam for moist air, and for warm water baths, with scarcely any additional cost, could be supplied in every factory in which steam is wanted for propelling machinery.

As a part of domestic hygiene, tepid bathing ought never to be overlooked. A bath-house should be deemed

in importance only secondary to a kitchen, or a cooking stove, and certainly take the precedence of rooms filled with costly furniture and devoted to entertaining company. A house thus supplied furnishes its inmates with an opportunity of washing the whole body, daily, with cold water, if the circulation be sufficiently active to cause reaction and the requisite salutary phenomena, or of using the tepid bath, which will be found generally most congenial to children and delicate females, and to all of both sexes who are constitutionally feeble. Other older and invalid members of the family can with facility enjoy the luxury of the warm bath, and thus all, according to constitution and habit, will have an opportunity of daily practicing that which is instrumental to health, adds to comfort, and is essentially necessary for the preservation of personal beauty and vivacity of movement.

Vapor baths we must suppose to affect the animal economy in virtue, mainly, of their heat, when they are of the dry kind, and of their heat and moisture when they are the product of hot or boiling water. They are also susceptible of another division, viz., into *simple* and *medicated*. The first, when they consist of merely hot, dry air, or watery vapor; the second, when holding in solution or suspension, various medicinal substances. The effects of vapor, whether of the dry or moist kind, applied to the human frame, are also greatly modified by the circumstances of its application; that is, whether the whole body be immersed in it, so that it shall be inhaled, and applied to the lining membranes of the lungs, or only to the skin, the head being free, and a direct communication established with the common atmospherical air.

Bathing in all its divisions, as respects temperature,

where the entire surface is subjected to the action of the water or to watery vapor, is attended, to a certain extent, by identity of effects. It acts as a detergent—cleansing the skin from adherent impurities, and thus enables this organ to perform with more effect its various functions.

Under the head of vapor bath I include the confining of the body, in whole or in part, in a medium consisting of hot air in which boiling water is placed, or of dry air simply heated. The first is called a *moist* or *steam*, the second a *dry vapor bath*. Either of these may be impregnated with various substances, volatilized or dissolved; and it is then called a *medicated* vapor bath.

The temperature of a simple vapor bath will vary from 90 to 150 degrees Fahrenheit, according to the time which has elapsed since the first formation of the vapor. The heat of a Russian vapor bath is commonly from 122 to 133 degrees Fahrenheit. Sometimes, as in private baths, it is as low as 100 degrees or even 98 degrees Fahrenheit.

The use of both moist and dry vapor for the purposes of hygiene, as well as for the treatment of disease, was known to the ancients. Hippocrates recommended fumigations—sometimes simple watery vapor—sometimes the vapor of various gum resins, and emollient herbs, through which the vapor from water was made to pass. Among writers of a subsequent date might be mentioned Aretæus, who distinctly describes as the best the method by which the patient has his head out of the bath and breathes the common air, whilst the rest of the body is exposed to the vapor.

The physiological effects of vapor bathing differ in a *dry* or a *moist* vapor. Both, at an elevated temperature,

have the common property of imparting caloric to the body, and even, after awhile, of increasing the heat of the blood itself. The heat thus acquired may last for some time after a change of medium; and in this fact we find an explanation, in addition to the excitement of the nervous system, of the ability to endure great cold with impunity by those who have recently made use of the vapor bath.

There is greater rapidity of evaporation in the dry than in the moist vapor. In the first, or dry and hot air, the evaporation is proportionate to the stay in this medium rather than to its heat. Thus, for example, ten minutes passed in a dry vapor bath of 122 degrees Fahrenheit, and one of 212 degrees Fahrenheit, gives rise to the same loss by evaporation; and this in a constant proportion. In moist vapor there is no loss, but rather a gain of weight; and if we admit that still there has been evaporation, this must have been more than made up for by absorption.

We can readily understand the difference in the sensation of the persons exposed to the two kinds of vapor as relates to thirst. That of the one who has left the moist vapor bath gradually subsides, in proportion as he loses his excess of caloric; while that of the other, who has left the dry sudatory, and who has lost a great deal of the aqueous portion of his blood, cannot be appeased until he has drank considerable water.

The toleration of dry heat is much greater than that of moist heat. One will almost suffocate in the vapor bath, at a temperature of 122 degrees Fahrenheit, while in the dry sudatory of 300 degrees Fahrenheit but a slight uneasiness is experienced.

Chabert was in the habit of entering an oven, the

temperature of which was 400 degrees Fahrenheit, and in some instances 600 degrees Fahrenheit.

In prescribing vapor baths we must, therefore, bear in mind the differences in physiological effects between the two kinds—the dry and the moist. In the first, the sweat so abundantly secreted is soon evaporated, and the skin is thrown into a state of erethism or vasculo-nervous irritation. In the latter, the vapor is condensed on the surface of the body, from which evaporation might take place, both of this vapor and of the sweat that is exhaled, but for the saturation of the air with moisture. The caloric, in consequence, accumulates in the body.

The effects of a vapor bath on the circulation are analogous to those of warm and hot water baths of a lower temperature, owing to the elastic vapor being a less powerful conductor of heat than water. Thus, for instance, a moist vapor bath, at 100 degrees Fahrenheit, is but equal in its stimulating effects to a tepid water bath of 90 degrees Fahrenheit, and one of the former kind at 122 degrees Fahrenheit, is only equal to one of the latter at 100 degrees Fahrenheit.

The pressure of a body of water, in the common bath, is sometimes a cause of considerable distress to certain weak and nervous persons. In the vapor bath they are exempt from this annoyance.

When the dose of the caloric is not great, its stimulating action will be mitigated by the influence of the moisture, which may even predominate and give rise to soothing and sedative effects. Thus, the aqueous portion of vapor applied to the epidermis or outer scarf-skin penetrates and softens it more completely than simple immersion in warm water would do. This very

softening of the hard and resisting cuticle and epidermis, and even of the dermoid tissue itself, allows of a greater expansion of the vessels of the skin proper, and diminishes in consequence the state of tension to which the nervous papillæ might have been subjected. The simple watery fluid condensed on the skin or penetrating the epidermis is largely absorbed, and by its mildness and blandness is an agreeable diluent of the more stimulating fluid which may have been in the vessels previously: the nerves also are pleasurablely affected, as in the instance of the warm bath, by this mild vapor applied to their extremities. Hence, we can understand how, even although the caloric of the vapor should invite a greater afflux of blood and fluids to the minute vessels of the skin, the entire effects of this kind of bath should be of a soothing and sedative, rather than stimulating or irritating character. But we must also take into account, at this time, the increased secretion from the skin in the form of sweat, and which, when not excessive, is often salutary. It is not so much, however, by simply restoring and exciting perspiration that this remedy is so serviceable, as by its restoring the due proportion between the secreting and absorbent vessels—accelerating their circle of functions, and without undue heat or excitation causing a renewal, as it were, of the cutaneous system; that is, of the tissues which compose it. Hence the old cuticle, after the regular use of the vapor bath, peels off, and new is formed; the complexion and color of the skin are improved by the removal of the darker and discolored pigment, and the substitution of a new deposit. The inert and partially collapsed capillary vessels of the true skin acquire more vitality and fulness from the afflux of blood to them, in conse-

quence of the heat of the vapor, and they are more ready to supply the secretion of sweat.

The higher the heat, the more decidedly stimulating will be the vapor—and of course the greater will be the cutaneous excitement and duration of the heat of the system, even to the extent of simulating a febrile paroxysm.

The hygienic effects of vapor baths have been observed on a large scale, as when both dry and moist air baths were used by the Romans, the dry air ones by the Turks and other people of the East, and the moist vapor by the Russians. Refreshment and invigoration—removal of the lassitude and aches incident to long travel and fatiguing exercises, and ability for fresh efforts—are common effects of vapor baths, when of a temperature corresponding with that of the warm water bath, and more especially when they are succeeded by cold or tepid affusions.

Worthy of especial notice, also, is the additional exercise which the skin and subjacent muscles, and the circulatory apparatus receives by the auxiliary processes of friction, shampooing or massage, flagellation, &c., after the vapor bath.

The extreme softness and suppleness of the skin, one of the hygienic effects of this kind of bath, result from the detachment of the outer epidermic scales, which peel off in quantities surprising to those who perhaps but a short time previously had subjected themselves to thorough ablution and cleansing in the warm water bath.

Incalculable benefits might be enjoyed by both the young and the aged, in whom nutrition is not well performed, and whose skins are dry and harsh, and digestive functions sluggish, by the use of vapor bathing.

Inequalities of growth of particular parts or regions by undue development of some and weakness of others might be greatly corrected—especially if appropriate gymnastic exercises be resorted to contemporaneously with the vapor bath.

Irregularity of certain functions, as of menstruation, and derangements incidental to this state, whether at the age of puberty, or later in life, at what is called the critical age in females, would be removed by the means now under notice. It has also its value in certain cases of pregnancy, in which the female suffers from nervous disorder and irritability of the vascular system; and also, after child-birth, where the secretion of milk is tardy.

The preventive or preservative operation of the vapor bath is often manifest, when it is resorted to by those who have been chilled by recent exposure to extreme cold, or to cold and moisture, and who, in consequence, are in imminent danger of violent inflammation—pleurisy, pneumonia, bronchitis, rheumatism, &c.,—supervening.

The more general and extended prophylactic powers of this agent may be readily understood from a knowledge of its physiological effects. Its judicious employment will go far to ward off hysterical and other convulsions, and varieties of nervous disorder. Equally efficacious in this way is the vapor bath against rheumatism and various forms of neuralgia, catarrh, &c.

In recommending the vapor bath under the circumstances just specified, I must be understood to have reference to the moist vapor, except in the instances of lymphatic plethora, and a predominance of the lymphatic temperament—or when the skin is habitually

cold, and lacks activity of circulation. In these cases the hot dry air sudatory will be preferred.

M. Rapou asserts that the most abundant perspiration is produced in a moist vapor bath, of a temperature between 106 to 112 degrees Fahrenheit, and in a dry or hot air one, between 122 and 156 degrees Fahrenheit; but for ordinary hygienic purposes the bather should begin with vapor of a lower degree of heat than either of these, say 95 degrees Fahrenheit; nor will it be necessary for him, in common, to be subjected to the high standard of either. A knowledge of the perspiratory point is more available in therapeutics than in hygiene.

When perspiration is tardy, this effect is often readily obtained by drinking hot water or a light douching of the body of the bather with warm water.

The use of vapor bathing is not restricted to any particular period of life. It may be used by the infant and by the very aged.

If we are allowed a choice, the hot air or dry vapor bath should be taken in preference to the moist one during the winter months. For myself, however, I have no apprehensions of injurious effects from the employment of the moist vapor bath, at this season, provided it be taken of a sufficiently high temperature to produce an evident excitement of the skin and general system—manifested by some redness and augmented heat of the former, and a slight acceleration of pulse. In this state of body, one is safe from subsequent temporary exposure to the sedative influence of cold, or of cold and moisture.

The *duration* of a vapor bath will vary from ten minutes to one hour, according as it is general or partial, and the purposes, hygienic or therapeutical, for which it

is used. Temperament and habit will, also, exact differences in this respect. Dr. Green remarks on this point: "After the perspiration has appeared about five or six minutes on the forehead, the full effect of the bath has been obtained, and the patient should immediately quit the apparatus. If the stimulus be continued longer, it is at the expense of the agreeable feelings first induced: a degree of languor and exhaustion succeeds to these, and patients then feel drowsy and disposed to sleep. But if the bath be quitted when the effects are at their height, a comfortable degree of warmth is experienced for some hours afterwards, and the activity of the body and the elasticity of the mind, far from being diminished, are, on the contrary, very much increased."

The *number* of baths and the *entire period* during which they should be used as a remedy in any one disease, cannot be arbitrarily designated in advance. In acute diseases, a few baths, during a period, at the most, of five or six days, is all that is required. Two to three per week for from one to three months will constitute a course usually sufficient for most chronic affections.

If relief be procured by the remedy, after a course of bathing, but the patient complains of fatigue from its prolonged use, it will be well to suspend the treatment for a month or so, and then resume it.

The best hour for the vapor bath is that recommended in other kinds of bathing, viz., when the stomach is not loaded with food.

After the vapor bath, invalids, and the sick generally, should recline in bed or on a couch, and be covered with suitable clothing, so as to allow opportunity for, and encourage sleep and perspiration.

After the bath, sponge the skin all over, and more

especially, face, temples and neck, with cold water, so as to establish an agreeable and pleasant temperature of the organism.

Let us now inquire into the general or constitutional effects of the vapor bath, in various diseases.

In the treatment of *Fevers*, our leading object is to save the organs from congestion and often coincident inflammation, and to remove nervous irritation and its accompanying phenomena of disorders of mind and sense. The vapor bath, by contributing to restore the suspended function of the skin, acts on all the membranes and their tributary glands; and in this way it restores the suspended secretions, abates the trouble of the circulation, and consequent tendency to congestion and inflammation, and soothes, at the same time, nervous irritation.

There are three periods in which the vapor bath may be had recourse to in fevers: In the first, or forming stage; in the second, increase or culmination; and in the third, the decline. The temperature of the bath will vary in each of these three periods; being in the first and third higher,—as the intention is to stimulate the skin—than in the second or middle period, in which the vapor ought not to be more than merely warm, and, as such, soothing and sedative, inviting rather than forcing the skin to secrete sweat, and thus relieve the overloaded capillaries and oppressed, one might say engorged, viscera.

To meet the indications at the beginning and decline of fever, the temperature of the bath need not exceed 110 degrees Fahrenheit; while in the height of the fever that of 90 to 95 degrees Fahrenheit will suffice. The duration of the bath will be from fifteen to thirty min-

utes, according as it is borne by the patient, in reference to sensations of fullness about the head, or to vertigo, and to the state of the respiration.

This remedy has been employed, also, in typhus and typhoid fever with benefit. It is well calculated to remove that dryness and acrid heat of the skin, which, although part of the disease, reacts with morbid force on the internal organs, and especially the mucous membranes. Hence it is, that both the cold and the vapor bath, by abating this irritation of the skin, produce such a soothing and tranquillizing effect on the entire organism.

In the *congestive* forms of fever, especially in the stage of depression and collapse, much benefit may be expected, has indeed been derived, from the vapor bath, and still more from the hot-air bath.

In asthma, entire relief has been obtained by the use of the vapor bath.

Rheumatism and gout, in their chronic forms, have long been adduced as diseases in which the greatest relief has been obtained by vapor baths—both of the moist and dry kinds. M. Rapou speaks with a confidence of the remedial powers of this agent, derived from his large experience of its effects in rheumatism, of which, he assures us, he has met with upwards of eight hundred cases in three years. Well may he describe this disease as endemic in Lyons, the city in which he erected his fine establishment for vapor bathing, and in which he noted the cases that furnished him with his clinic.

Syphilitic rheumatism has been treated with marked benefit by means of the vapor bath. So, also, has been gouty rheumatism, and rheumatism in which metastasis occurs.

Scrofula, in its various forms, finds a valuable remedy in the vapor bath.

In the complications of *scrofula with syphilis*, a condition of things more common than is generally supposed, and which is singularly difficult to treat, vapor bathing is unrivalled by any other remedy.

Dropsy, in its different varieties, has been treated with success by vapor baths. From whatever cause this disease, or rather this effect of prior disease, may have originated, and however sustained, the functions of the skin are generally, if not universally impeded; and on their restoration and greater activity will depend much of the relief to be obtained by therapeutical treatment. In having recourse to vapor baths, we, of course, cannot be unmindful of the necessity of calling in the aid of other additional means for the removal of the phlegmasia or chronic engorgement of the organ, which so frequently gives rise to dropsy.

In *cutaneous diseases* vapor bathing is unquestionably of great value. The cases in which the efficacy of the moist vapor is most marked, are those of dry and squamous eruptions in sanguine temperaments.

Among the various domestic prescriptions, given for the purpose of preserving a due degree of softness and pliancy of the skin, there are few if any equal to that favorite of the ladies, cold cream. Exceptions might perhaps be made in favor of cocoanut or cotton-seed oil. Were either of these cheap and readily obtained cosmetics to be used, to the entire exclusion of the powders, washes and pigments recommended with such unblushing effrontery to remedy roughness and eruption of the skin, we should have more smooth faces, better complexions, and what is of still more consequence, we

should not hear or read so frequently of dyspepsia, diseased liver, consumption, affections of the heart, dropsy, and insanity itself, severally coming on after cutaneous eruptions repelled by such means.

Syphilitic eruptions and ulcers are greatly benefited by the moist vapor bath.

The good effect of the vapor bath in these as well as in numerous other morbid states of the animal economy has been attributed to the free perspiration, and, in this respect, the restored function of the skin, after it has been suppressed. This opinion has been supported by reference to the fact of a stoppage of cutaneous transpiration, by exposure to cold and moisture, being followed by numerous maladies; catarrh, rhenmatism, pleurisy, and inflammation of the lungs and other organs, fevers of various kinds, intermittent, puerperal, &c. Additional evidence is furnished in the condition of the skin during many chronic maladies, in which it remains dry and rough.

Make it your constant and continued practice to take the Turkish bath. It will more perfectly than anything else remove poisonous matter from the system. It promotes healthy secretions, and thus excites an appetite for food. It will relieve the congested vessels, and send the blood flowing through your body laden with oxygen (which is our life). It will strengthen the nervous system, give tone and vigor to every fibre of your being, new life and elasticity to the depressed mental powers, and it will do more for human happiness than any material agent under heaven.

Outside the bath the perfect cleanliness and high state of health it induces act as a preventive to contagion. Within its precincts the body is giving out

instead of taking in. But there is still a stronger reason, viz., *that no contagion or infection can live in the temperature of the bath, for so high a temperature destroys all animal poisons.* Perhaps it may be useful also to tell those who advocate vaccination that a child should not be taken to the bath for some days after the process, as it would have the effect of destroying the virus, and thus rendering the operation ineffectual. The bath destroys the virus, and will destroy small-pox also. (Why use the virus at all—a relic of the age now fading—wherein “the causes of disease” are administered as a means of cure?) Moreover, the bath cures hydrophobia and bites of poisonous reptiles.

The plague, which is the most infectious of all diseases, ceases in India when the temperature rises beyond a certain point; and contagious diseases are less prevalent in hot countries than in more temperate ones, because germination and fermentation are both destroyed by a high temperature, as well as by a very low one.

The effect of the bath is to bring everything to the surface, therefore, if it throws out a rash, a boil, or any form of skin disease, instead of being displeased or alarmed, these indications of an impure state of the blood should be patiently submitted to, on the ground that if the poison were permitted to accumulate it would manifest itself at a future day, perhaps in some chronic disease, like neuralgia or rheumatism; or in an acute attack of fever or inflammation.

Take the bath, purify the blood, wash away the dirt through the organs of excretion, which I might call the waste-pipes of the body. Do not wait to be ill. Reflect on the wonderful apparatus which Nature has specially

appointed for the removal of noxious material from the system, and keep it in healthy working order by means of an agent which, every time it is taken, removes all impurities from 7,000,000 of pores, and cleanses and ventilates twenty-eight miles of drainage.

It is Nature's purpose that these myriad vessels carry away the old, worn-out, or useless materials of the body, and the Turkish bath is a most successful auxiliary, *its grand effect is thoroughly to open and cleanse the capillary tubes and strainers; to clear out their obstructions, and to freely circulate the blood through them.*

CHAPTER XIV.

WHY DO WE PERSPIRE?

THE functions of the skin, and the importance of those functions on the animal system, has not as yet been carried to that high degree of accuracy that is to be desired, but the light that has been reflected upon the subject by physiology, corroborates in full the opinion that the universal use of this important factor, the Turkish bath, would contribute in a superlative degree to the preservation of health as well as materially decrease many painful diseases.

This climate is exceedingly detrimental to health, and to the discharge of the proper functions of the skin, by the general prevalence of damp and cold. The bath imparts a warm and dry atmosphere—conditions peculiarly favorable to the copious performance of perspiration, and consequently to the discharge of the various noxious principles which, if allowed to remain in the body, would prove injurious to health.

The Turkish bath is an institution which has existed from the earliest times that are known, but which had been lost in the West, and preserved in the East; for the Turks did not invent the bath; they found it, and had the keen perception to preserve it.

Let us drop, if you please, the word "bath;" it is heat. Let us away with that absurdity of "hot air." It is the application of heat to the human body. As we require a certain degree of temperature to boil an egg,

to obtain a particular tint in dyeing, to perform any chemical or culinary operation, so we require a particular degree of heat to act upon the human frame. Why is fever heat 112 degrees? Why is it not 111 degrees? Why not 113 degrees? "If it were 113 degrees, it would be no longer fever." Nature is struggling to get at its remedy. When the remedy is secured the malady is conquered. I do not mean to say that if you get 113 degrees you stop fever; but what I mean to say is this—that the malady is working towards its own cure, and that cure is heat. How is it that, by means of a slight increase of heat, there should be a sudden power given to the body to discharge water in the form of perspiration? From whence does that water emanate? It comes from the blood. When a man sits on a chair in a heated cabinet, and sees the little pool spreading on the floor around him, he himself being its fountain, and then feels a thirst for water, and takes up a glass and drinks, it is to be supposed that even if the least curious of the human race, he will put questions to Nature—that is, to himself—and say, "Why am I to have simultaneously water drained out of me, and poured into me? This is water—that is water. Why, then, can I not be allowed to keep my own?" Having put these questions and received no answer, perhaps he will begin again, and say, "But is it the *same* water? Though it appears the same, may there not be a difference? May it not be that the water making its exit is impure, whilst that coming in is *clean*?" And this question will be the solution of that great problem, though never yet stated—*Why do we perspire?* We perspire, because perspiration being the watery portion of the blood, it carries, when discharged, all extraneous matters. The blood flows with intense

and wonderful rapidity through every portion of your frame. That blood has to carry away the effete matter which results from each motion of the mind or of the body. Whilst depositing fresh fibre, it has to remove old poison. In fact, that blood, with its watery part, is washing the whole internal man every instant of time, or it is constantly subjecting him to his own pollution. Well, apply a certain degree of temperature to that body, and instantly comes into operation that wonderful provision of Nature through which that blood relaxes its watery parts, and with it discharges the whole of those poisonous matters. When a person exercises vigorously, the immediate consequence is perspiration. Exercise is the purpose for which the body was created. You live and you act; your life is in your action; therefore the action itself is the purpose and aim of life. That action relaxes those fluid contents of the blood. The same happens whenever you raise the temperature. Life is a chemical operation; it is being performed every minute, every minutest subdivision of time. Every human being on the face of the earth is inventing, second by second, life. His existence depends upon a chemical operation which he carries on. That operation, like all others, is retroactive. It is in chemistry as in dynamics. If you discharge a broadside of shot into your enemy's vessel, there is an equal impingement on your own, only you parry the blow. Whilst, then, you are constantly producing the phenomena of life, you are as constantly producing the elements of death. Death is the reaction, poison is the recoil. Your own breath will kill; there is not a more deadly poison; all that comes from you kills. The effete matter of your own body is poison. The pollution of man is from himself—is from within.

If you impede—that is to say, if you interfere with the natural facilities of that organ by which that poison is to be carried off as rapidly as it is created, you superinduce a morbid condition of the frame. It matters not in what manner it manifests itself—whether it is in incomplete health or in positive disease. Inflammation is one of those results. When it is produced, it is itself a disease. The symptom becomes disease, and you die of the inflammation. Little matter, then, will it avail if we only can remove the causes of the disease after those causes have produced the symptoms which are themselves deadly. But observe this wonderful provision of Nature. You know fermentation is an operation dependent entirely upon the degrees of caloric; that with all the ingredients requisite, you cannot obtain it under a certain degree of heat, and you stop it above another point of the scale. You cannot obtain it under 90 degrees, and it will stop at 140 degrees. Now we are in the habit—science itself, which has not regarded hitherto this most wonderful of the manifestations of Nature—science, which has not perceived this first of the elements of cure, has already given the name of fermentation to certain classes of inflammatory disorders. Get the blood subjected to a heat of 140 degrees, and it will take out the inflammation—that is to say, the fever out. The human frame has such a wonderful capacity for wrestling with higher and lower degrees of temperature, that it will conquer cold and assimilate heat. But the surface of the body may be affected by heat so as to be brought up to the necessary point, as shown by its causing the flow of perspiration. A certain portion of the blood passes to the surface, the ends of the arterial circulation dwindling to nothing; the blood makes a leap

by another mysterious process into the extremities of the other vessels, which constitute the venous system. It is at this portion of the body that these minute sponges, which communicate with the exterior, are found; and it is at this moment of sudden and mysterious passage that the water of the blood is dropped to become sweat. At that point, if you have the surrounding temperature at 170 degrees, or at 200 degrees, or at 250 degrees, you will surely get a portion of the blood subjected to a heat which destroys fermentation; and as that portion is rechanged in every new pulsation of the heart, in the course of time the whole of the blood will have passed through that purifying process. That point is 140 degrees. You will not get 140 degrees in the body, but observe, living and dead chemistry are different things. Fire in a grate and life in a breast are chemically the same—the same aliment, the same product, the same residue. The temperature only differs, the one operation requiring 1,200 degrees, and the other 100 degrees.

The skin is what you live in; it is your habitation. You may not have thought of it in that point of view precisely, but you know it is your habitation. But it is also that by which you live. There are various organs which are each of absolute necessity to your existence; you cannot give precedence to any one over the other. Such are the heart, the lungs, the kidneys, the liver, etc. The skin is not generally reckoned as such; but the skin is just as important in that sense as any of the others. But I will show you the skin from a point of view in which you will admit that it has an importance which belongs to no other organ. To know anything and everything about the heart would assist no one out of difficulty in regard to it; and so of liver and kidneys, these things

being buried in deep obscurity. They are not open to your inspection, and they are entirely secluded from your curiosity. You never know anything of them but when they are in a deplorable plight, and then you only know you can do nothing for them. You may go to some professor of dark mysteries, and ask him to feel your pulse and look at your tongue; he may give you poison to agitate one organ that is sound, to get a little relief for the one that is suffering; and when you have not been extinguished in the operation, you call yourself lucky and your doctor learned. That is a very unfortunate predicament for a man to be in, in reference to his own belongings; but he is not in that predicament in reference to his skin. He can see his skin and handle his skin; he can manage it himself when he knows how. It is confided to his own judgment; and if he exercises his judgment upon it—which he can do when he understands its nature, which he cannot do when he does not—then not only can he keep that skin in order for itself, but by means of it he can deal with all the other organs that he cannot otherwise reach.

There is a great affinity between the organs. Your lungs may be pierced and bored; as if that was not enough, you immediately have your poor heart affected, as they call it, sympathetically. Your heart is in a lamentable plight, and then your lungs suffer; and so with the stomach. We never hear of any sort of regard or relationship between one organ and the other, except it is when the one interferes to disturb the other. Now, it is exactly the reverse with the skin. A man comes to me with diseased liver. I say to him, "I can cure you." If he is philosophical, he will put the question, "How will you cure me? You won't give me drugs; you are

not a medical man." I will answer, "I will make use of one of your parts to affect the other. I will make your skin cure your liver. I will use your skin by making it hot."

Now, I will tell you another use of the skin, for which you are not prepared. What is digesting your last meal? Your stomach, you will say. I answer, "Not at all; it is your skin that is digesting it; and I will prove it." First of all, the lining of the stomach is skin. It is the external covering turned in. That, however, is not my proof. What I mean to say is, that the preparation of those juices, which, passing through the lining of the stomach, are poured into that vessel to dissolve the food it has received, depends upon the action of the external skin of the body. These juices come direct from the blood; and their purity, and with their purity their efficacy, depends on the purity of the blood. Thus it is in the stomach that the food is digested; but it is by the blood that the food is digested; and the blood means the lungs and skin, which again are one, as conjointly required to fuse the blood with air.

The skin is what is between you and the world. It is made very wonderfully to bear the wear and tear of the world. A man does not live the same all his life; he is undergoing constant changes. He changes the tissue of his body just as much as he changes that of his clothes, but he does not require a tailor. The old suit or the old skin is not thrown aside like that of a snake, and you do not come out from under it. It is constantly in process of reparation; it repairs itself; and as every organ is made for its purposes, so must the purposes be for the organ. If your skin is made to bear the wear and tear of the world, and you prevent that wear and

tear, then the excellence of the construction comes to be a source of decay.

The reason why heat cures all diseases is that disease itself is a result of your departure from natural habits. I assert—and who can contradict me?—that man is the most perfect of Nature's works; and if the inferior orders of creation suffer only from slight and rare disturbances in the form of disease, and live out the natural term of their lives, it follows that, wherever there is habitual disease in the human frame, it is a penalty for having disturbed the natural course which Nature has appointed, and misused the means which Nature has supplied. The very first of these neglects has reference to that condition of the skin with which I am now dealing. You have to bear the wear and tear of the world—I mean friction. The skin is constituted so that, in repairing itself, it fortifies itself against external friction. What do you do? You go and place cases upon that body. You confine it, you close it up, you cover it over, you condemn it to existence in a dark dungeon, you shut out the breath of life, you shut out the light of the sun, you extinguish for it the natural and fortifying alternations of temperature, and protecting it from that friction which is necessary to rub it down, you leave it unavailable for the admission of life-giving air and the emission of death-dealing gases. This is the cause of that abnormal condition which is to be found whenever the clothes are fitted to the person.

Wherever you are right, you are not right as regards one point only, but all points. Beauty is a fruit of Nature no less than health. Enter a studio, observe how a painter or sculptor will prepare himself fitly to present the human frame; you will find he is not engaged upon

specimens from the tailor's or milliner's shop. You will find him traveling back to the Romans and the Greeks to borrow the pallium and the toga to robe his figures.

Thus there may be a single cure for many diseases. In the bath, the most essential operation is the removal of the dead skin. From the moment that integumental clothing was inflicted on man the clearing away of the dead epidermis became the first necessity, and, until that is done, a man has no sense of what life is in his own person. Those only who have undergone this operation can say, "I know what it is to be clean."

The skin throws out matter for its own protection. That not being cleared away, there is added to it the products of perspiration—that is to say, matter left when it has evaporated, the two together forming a varnish that covers the skin and impedes the performance of its duty, which is to throw off one half of the poisonous matters that are produced in obtaining life. To bring the body, therefore, into a wholesome state you must remove that varnish. If the varnish were complete, you would have only a few hours to live; if the surface of the skin be rendered impervious to air—if it no longer can admit the oxygen necessary for life, and no longer allow the carbonic acid gas to escape from it,—then you must die. You die by suffocation just as much as if a handkerchief was tied over your mouth. You do not die so quickly, for in one case you will die in two or three minutes; in the other case you will require about twice as many hours. The increase of heat enables you to remove the covering matter; but the heat itself will not remove it. Go into a bath at any heat you like, you will not be clean. Perspiration may pour from you, but unless you have cleared off that horny matter you will not have allowed

the free vent to those impurities which as they are constantly recurring require an equal facility of ventilation and escape. Therefore it is that in those early times when men were simple, when the perceptions were true, when they, wholly ignorant, anticipated the result of science, this matter was carefully attended to. The first plan, of course, would be rubbing by the mere hands and finger nails, and that is the best way; there is nothing more perfect, nothing can approach to it. It was with the ball of the hand that the horse was sham-pooed, not curried. Still, after that we come to the different methods adopted by different nations and tribes. The peculiarity of the Roman bath was the strigil. That was a curved piece of metal with which the dead matter was scraped off. The bath did not belong to the Romans any more than to the Greeks or the Turks. We trace it through them back to that antiquity in which all good things are lost. No good things have been invented; they have always been found,—if there be indeed a distinction between inventing and finding. The Romans, the Greeks, and the Turks had a wonderful faculty in common—it was the faculty of selection. When men have nothing they have no pretence, and they look about them; when they see anything desirable they take it, and when they have taken it they hold fast to it. The Romans were a set of bandits. Who were the Greeks? Ask even where they came from, and only echo can answer. Who were the Turks? ravagers even within the limits of history; and yet these three races were great through transcendant judgment. When, therefore, we refer to anything Roman, we have commenced and not concluded an inquiry. In reference to the strigil of Rome and Greece, the first thing will be its

name. The ancients were not philologists. Yet one of the later Romans did indulge a little in that branch, and he tells us that the word came from Mauritania. Nor were the ancients antiquarians. And it is, therefore, to an epigrammatist that we owe the information that the strigil came from Troy.

The strigil and the oil-bottle for anointing may be seen on the bas-relief of the most ancient tombs and caves of Asia Minor. A large cast of one of these may be examined in the British Museum. The strigil, therefore, which represents one of the methods of cleansing the skin, descends to us through the Greeks and Romans, from those populations of Asia Minor from whom the Greeks derived their arts, sciences and letters, and, indeed, everything which we know as Greek. But these populations of Asia Minor were themselves but the offshoots of the Medes, the Persians, and the Assyrians, who were again themselves, but the successors of the great Mohabadian empire, which traces up to Jemshid and Cayoumeres. As it is to the Bath of Darius that the Greeks owed the knowledge of the structure itself, and as the permanency of the habits of these people has passed into a proverb, we have to infer not only that the bath, but that peculiar modification of it in which the strigil was employed, belongs to that great and glorious race the Arians, the splendor of whose renown, though obscured, endures through five thousand years.

The second process is the rubbing or polishing down the body with a gazul.

The traveler who goes to the East, and who there enters the bath, will be subjected to another process. After he has been sufficiently sodden in the heat,

and has been worked and shampooed in all his limbs, the shampooer will put a glove or bag upon his hand, and, commencing upon him, will roll the dead skin off, and as he looks around he will see lying what he may at first take for pipes of maccaroni. Should the operation on his body have reacted upon his mind, he will begin to perceive what a difficult thing it is to make the body clean, and he may say to himself, "How is it possible that I have lived all my life in this condition of filth?" The next reflection will be or may be, "Certainly these people understand the philosophy of life better than we do." Here then are the three processes: The strigil, covering the whole of the fields of classic antiquity, and reaching back to the earliest periods of history; the gazul, which extends over the western portion of the old world, and is co-equal in its claims to antiquity with the other. The mass of human beings subject to these processes have been pre-eminent for the energy of their bodies and their minds, and distinguished for their performances at once on the fields of dominion and of literature. The third is the glove of the barbarous Turks.

If ever there was a subject sufficiently meritorious to enlist the attention of men by its connection with their own well-being, or to command their respect by the charm which purification throws over intercourse with others—if ever there was a subject which gave vent to benevolence, it is this one to which I have endeavored to call your attention. If I have succeeded in awakening that attention, it will not flag, because it will demonstrate its benefits and power in every act and circumstance of domestic life. The only apprehension I entertain is, that remaining satisfied with the first

attempts, and content with empirical inventions, you stop short of the perfect thing, and instead of recovering the luxury, pride, enjoyment and strength of the most luxurious and philosophic, learned and military, of the races of the earth, this endeavor shall pass away as a troubled dream. It is thus I am prompted to implore you, nor only by the desire to introduce to my countrymen a benefit of which I know and experience daily the value in my own person, but also by the necessity of preventing this experiment from lapsing, by reason of self-love and speculation, into a disastrous and shameful abortion.

A man is not born into the world with clothes; nor are ready-made hatters, hosiers and tailors natural products. Man is born in his skin, and is, so to say, his own clothier; it is that skin that has to sustain the wear and tear of the world; and being endowed with that faculty, it is necessary that it should be able to stand that wear and tear. Man is his own clothier; instead of having to go to a shop for a new suit of skin, he from within is constantly repairing that which he possesses. But, if he puts a covering over that skin, the wear and tear no longer takes place; and the impenetrable varnish so supplied by Nature not being worn off, the body becomes suffocated, and the man is afflicted, just as a plant would be when taken out of the light and excluded from the air. Thus it is that, from the moment that the covering by textile and general clothing is in use, the first necessity of man came to be the removal of his dead skin.

For this purpose four processes have been adopted throughout the families of the human race. The first was the rubbing down with the ball of the hand, as still used for currying horses of high breed. The three others

are, scraping, rolling and polishing. The scraping was with the strigil, which we learn of from the Romans and Greeks, and which is figured on the tombs of Lycia. The rolling is by means of the goat-hair or loof-glove, as to-day practiced by the Turks. The polishing is with the gazul, as practiced by the Moors, to whom it is confined, and who alone possess the admirable substance which is used for it.

The skin is entitled to the rays of the sun, to the breezes of the air. We shut out those rays, and deprive it of those breezes; we shut out from it the alternations of heat and cold, we deprive it of moisture, and finally shut it up in a case, in which it is darkened and confined until at last we render it no longer serviceable for the purposes for which it was intended.

Seclusion from sunshine is one of the misfortunes of our civilized life. The same cause which makes the potato-vines white and sickly when grown in the dark cellars, operates to produce the pale, sickly girls that are reared in our parlors. Expose either to the direct rays of the sun, and they begin to show color, health and strength. One of the ablest lawyers in our country, a victim of long and hard brain-labor, came to me a year ago suffering with partial paralysis. The right leg and hip were reduced in size, with constant pain in the loins. He was obliged, in coming up-stairs, to raise the left foot first, on every stair, dragging the right one after it. Pale, feeble, miserable, he told me he had been failing several years, and closed with, "My work is done. At sixty, I find myself worn out." I directed him to lie down under a large window, and allow the sun to fall upon every part of his body with the exception of the head—at first, ten minutes a day, increasing the time

until he could expose himself to the direct rays of the sun a full hour. His habits were not essentially altered in any other particular. In six months he came running up-stairs like a vigorous man of forty, and declared, with sparkling eyes, "I have twenty years more of work in me." I have assisted many dyspeptic, neuralgic, rheumatic and hypochondriacal people into health by the *sun-cure*. I have so many facts illustrating the wonderful power of the sun's direct rays in curing certain classes of invalids, that I have seriously thought of publishing a work to be denominated the "Sun-cure."

It is painful to reflect that so many days, weeks, months and years have elapsed since the discovery of so many methods of natural cure, and that such results have been unquestionably established, without any steps to render them available for the hundreds of thousands of our fellow-creatures who, in the meantime, have been dragging out lives of hopeless suffering, or who have been consigned to an untimely grave. Physicians stand in the way, stopping those who would look forward, and pretending the desire of investigation, demand the production of hospital experience and results. How can such results be obtained, except by their co-operation? Those who stand in the way of trial, and who then deny to their patients the benefit of a cleanly habit, for the bath is nothing less, because the trial in one peculiar fashion has not been made, would be the first to demand that test were they not satisfied that it would be successful. Every patient has now, however, the means which he never possessed before of testing the capacity or the integrity of his medical adviser.

I have long believed that we make far too little use of the skin as a means of depurating the blood, and that

the uncertain action of diaphoretic medicines has had much to do with this neglect. The great importance of the skin will be acknowledged, if we remember that the volatile matters discharged through its pores are about double the amount of those discharged by the lungs, and that even the quantity of water expelled by the skin nearly equals that discharged by the kidneys.

Gout, a true blood disease, is said to be unknown amongst the Turks; and this exemption is probably as much due to the free action of the skin caused by the bath as to their temperate habits. In estimating the value of the bath as a curative agent, however, the special effects of caloric on the body are to be taken largely into account. The effects of the higher degrees of heat possess a great but as yet an almost unrecognized importance.

A good deal had been said or written in a general way about the beneficial effects of the bath in affection of the lungs, but it seemed desirable that its action upon consumption should be patiently tested and fairly made public.

The bath will prove useful in consumption for the following reasons:

First.—As the functions of the skin are promoted by the removal of effete matters which clog its pores and hinder free excretion, benefit is to be expected from the bath regarded in a purely hygienic light. Experience proves that whatever promotes the general health of the patient tends to retard the destructive changes in the lungs.

Second.—The perspirations of consumption are an effort of Nature to depurate the blood by excretion of offending material, the substitution of sweating induced

artificially will effect the same end in a better and safer manner.

Third.—In cases in which sweating is a marked symptom, this, as well as the exhausting fever which precedes it, will be replaced by the operation of a process agreeable to the sensations of the patient, and one which, being completely within control, can be regulated according to his strength.

In a disease which condemns so many to prolonged suffering and death, and in which we have been powerless to save, a treatment cannot fail to be welcome which as an agent of cure promises so well, and which has been at least proved greatly to alleviate suffering.

If it unfortunately falls to my lot to be affected by consumption, I should give the hot-air bath the fullest trial.

As a preventive from disease, an occasional gentle sweat, followed by a bath, a wash or sponging, as may be suitable for the occasion, is invaluable for general use. But a domestic process may be improvised under any conditions by means of an alcohol stove, a lamp or a small gas stove under a wooden seated chair, with hot foot-bath, being covered with blankets, etc.

Sweating may be attained even in bed by means of a foot-bath, hot flannels over the abdomen, and a few bottles filled with hot water, each covered with a woollen stocking, and placed near the body.

Warmth with moisture can be so managed as to produce perspiration wherever we have fire and water with a few coverings, and I hope this book will draw more attention to Nature's process of cure by exuding externally, in contrast to internal action.

Sweatings, I may affirm, are the only safe remedy for rabies or hydrophobia.

Blood poisoning of every nature should be promptly treated with repeated modified sweats until all danger is removed.

Even if the peculiar symptoms manifest themselves, the same means should be used, with confidence of a cure.

If the virus or poison could be abstracted from the vein before it reaches the heart and lungs, and becomes incorporated with the life-blood, there might be some confidence in the usual counteracting remedies applied to the wound, but no dependence can be placed on such remedies, or on Pasteur's inoculating theories. But sweatings can be so used as to expel all the impure materials with the water of the blood, and without injury to the healthy and pure or red blood.

Repeated instances have been recorded of cure under the worst symptoms of rabies—given by a physician as an illustration of the proof and efficacy of the remedy.

Dr. Buisson claims to have tried this remedy for this terrible disease (hydrophobia). He allowed himself to be vaccinated with saliva from a woman who had died of the disease. He says: "Believing that the malady would not declare itself until the fortieth day, and having numerous patients to visit, I put off from day to day my remedy—that is to say, vapor baths. The ninth day, being in my cabinet, I felt at once a pain in my throat, and still greater pain in my eyes. My body seemed so light that I felt as if I could jump to a prodigious height, or if thrown out of the window I could sustain myself in the air. My hair was so sensitive that I appeared to be able to count each separately without looking at it. Saliva kept continually forming in the mouth. Any movement of air caused great pain to me, and I was

obliged to avoid the sight of brilliant objects. I had a continual desire to run and bite—not human beings, but animals, and all that was near me. I drank with difficulty, and I remarked that the sight of water distressed me more than the pain in my throat. I believe that by shutting the eyes anyone suffering from hydrophobia can always drink. The fits came on every five minutes, and I then felt the pain start from the index finger and run up the nerves to the shoulder. In this state, thinking that my course was preventive, not curative, I took a vapor bath, not with the intention of cure, but of suffocating myself. When the bath was at the heat of 52 centigrade (150 degrees Fahrenheit) all the symptoms disappeared as if by magic, and since then I have never felt anything more of them. I have attended more than eighty persons bitten by mad animals, and I have not lost a single one. When a person is bitten by a mad dog, he must for seven successive days, take a vapor bath—‘a la Ruse,’ as it is called, of 151 degrees Fahrenheit. This is the preventive remedy. A vapor bath may be quickly made by repeatedly putting red-hot bricks in a bucket or tub of hot water, while the patient sits over it on a cane-bottomed or willow chair, enveloped in a large blanket, from twenty to thirty, or even fifty minutes. When the disease is first declared it may only require one vapor bath, increasing it to 140 degrees or 141 degrees, then slowly to 150 degrees; and the patient must strictly confine himself to his chamber, repeating the bath frequently until the cure is complete.”

Vital electricity is the most important agent in performing the functions of animal life, and the hot air, Turkish, or the Roman baths are calculated to regenerate

and retain animal electricity within and without the human frame. Public health vitally concerns personal reform, social reform, and sanitary economy. A connection exists between these. The science of animal life is the most important subject that could occupy the human mind. When we consider the uncertainty of life, the certainty of death, the pleasure of existence, and the dread of dissolution; when we consider the operations of this unfathomable principle, Life, of whose influence we are conscious, but of whose essence and seat we are ignorant; the use of which we are blessed with, but the knowledge of which is denied us; the term of which is fixed, but unknown, but which, through Nature, animates all regions—earth, air and water—we shall perceive much to admire, to excite our wonder, to fill us with gratitude for what we are, called from nothing to enjoy life, but with humility, when we contemplate the prime moving principle of all, and know that such is beyond all comprehension.

Animal life is a series of actions and of reactions, of creations and of recreations, of self-poisoning and of depoisoning processes; of waste and of supply, of nutrition and of combustion, of ventilation and of calorification. The external influences that promote all these vital changes are Light, Heat and Electricity. Life requires to be supported by food, as fire requires fuel. Fire is constantly consuming fuel; life is continually consuming the old materials of the body by electrochemical combustion. There are five signs of life, vital evidences peculiar to living beings. Four are positive proofs; the fifth, death, is a negative proof of vitality; for there cannot be death unless where there was life. We shall only refer to the first evidence of life, for it

bears specially upon the present question. It is that vital power of resistance to the influence of those physical agents termed heat, air and moisture, which all living beings of both the animal and the vegetable kingdom possess. It was accidentally discovered in France, in 1760, by two French philosophers, who wished to ascertain the temperature of an oven for some special purpose. The female attendant remained ten minutes in it, and marked the thermometer, when it stood at 288 degrees, or 76 degrees above the boiling point of water. The only effect the high heat had upon her was to heighten her complexion, but her respiration was not rendered quick nor laborious. This important fact astonished several philosophers. Dr. Blagden, of Edinburgh, repeated the experiment. On first entering, the heated air was very disagreeable, but all uneasiness was removed on the appearance of copious perspiration; though he could bear with impunity hot air at a temperature of 260 degrees, he could not put his finger into water boiling in the same chamber at a temperature of 212 degrees, nor into mercury heated to 120 degrees, nor spirit of wine to 130 degrees. But the most important point ascertained is, that while the living body bore the high temperature of 260 degrees, its own special temperature was only increased from 98 degrees to 102 degrees. Flowers and water plants are observed to flourish and grow in springs at a temperature of 212 degrees, but all preserve their own peculiar vital temperature; no matter whether they live in a boiling or frozen temperature, they resist that law of caloric which diffuses heat so as to establish an equilibrium of temperature, nor will they in frozen regions part with their vital heat to increase that of the surrounding temperature. Living

beings will neither give nor receive more or less caloric than they require.

Chubbert, a French experimenter, commonly called the "Fire King," withstood the high temperature of from 400 degrees to 600 degrees, while beef was being roasted and eggs boiled, owing to his strong vital powers. The workmen in a patent slate enameling establishment in London bear a temperature of from 200 degrees to 300 degrees for six hours daily, not only without inconvenience, but with benefit to their health. The bath attendants in Constantinople enjoy life up to ninety years, in robust health and strength; the large number of old people in Turkey, belonging to the working classes, is generally remarked. It is estimated that four Turkish porters will carry the load of six English, but all, rich and poor alike, take the bath, and are remarkably temperate. In fact, temperance and baths are religious obligations with the Turks—so much so, that the criminal condemned to death is as much entitled to his weekly bath as he is to his daily food. In Cyprus, where the population are partly Christian and partly Mahometans, the latter take the bath as a religious rite, and are singularly exempt from pulmonary consumption; while the former, who neglect this physical virtue of personal purification, are as subject to this fearful disease as European nations.

Life is a state of change, a slow combustion, supported by oxygen—for though this vital element be essential to life, it is also destructive of it; precisely as it is essential to light, but it consumes the oil. Caloric seems a most essential element of animal life—it warms the living body, and stimulates all the vital functions. The blood, "the life of the flesh," the internal atmosphere of

animal life, though not an organ, is one in the act of formation ; or, rather, the sum of all the organs that are being formed. It supplies the pabulum for every part of the body, contains the elements of life and death, of health and disease, and is composed of millions of vital cells, molecular lives, red globules, that live, grow, reproduce others, and then die naturally, or are killed by poisons that are permitted to accumulate in the blood, through neglect of personal purification of the skin, and which engender disorders or diseases of some one or more vital organ, as of head, liver or lungs—rheumatism or scrofula.

The importance of purity in the blood may be estimated from the millions of living individuals, called vital cells, that live and move within it, whose vital functions consist in the formation of organic matter, the vitalization of structure, the transmutation of form, and the propagation of their own species from parent cells. They are the bricks that build up the living fabric. When nutrition stops, life is exchanged for death ; the organized living structure then crumbles into dust, as it was.

There are two vital functions in action within us—a self-poisoning and a depoisoning process. The first generates animal heat, consumes the old materials of the body, and elaborates carbonic acid poison, through the influence of electricity ; the second removes these poisonous principles through the lungs and skin, &c., by means of the same vital agent. The millions of molecular vital blood cells are organized upon central sparks of electro-magnetic iron, which attract oxygen, by their magnetic influence, from the atmosphere, through the lungs into the blood, through which they become vital-

ized, and carry this vital element all over the body, where, in the capillary circulation, under the influence of electricity, the oxygen dissolves partnership with the red globule, and enters into electro-chemical union with the old materials of the body, first consuming them, and then dissolving them, when they are easily removed from the blood in the form of invisible vapor, or water, by respiration and perspiration through the skin and lungs. How fearfully and wonderfully are we made, for "in the midst of life we are in death." Self-poisoned, "we die daily." The matter changes, but the man remains; the same, yet different; no longer the same matter, but still the same man. The bony buildings of our living tenements are all removed and replaced in time—such is the wear and tear of human life—

"Singular to be at once another and the same."

—*Sir Walter Scott.*

With this brief review of the laws of life, we may consider the connection between animal life and vital electricity. Electricity—that physical soul of matter, and vital agent of Nature, which extends beyond the confines of our atmosphere into infinite space—keeps the whole planetary system in normal equilibrium, shakes the clouds in thunder, and, under favorable circumstances, will burn coke under water, and oils, with a brilliancy that could only be surpassed by the sun, and sufficiently luminous to photograph—performs within the little world of man, in all the parts, the drama of animal life, assuming simultaneously each and every character, and acting to perfection in all the vital functions, upon the stage of human life, and ending in the tragedy of death. The human machine may be fairly

regarded as an electro-magnetic, and a magneto-electric machine; for all the vital functions are electro-chemical in their nature and effects. The lungs and skin are electro-positive, the liver and bowels are electro-negative, the muscular system is an electro-genic apparatus. The nervous system is a magneto-telegraphic motive power; for what is physically felt in the extremities is psycho-physically acknowledged at the central seat of consciousness—the head.

Caloric, light and electricity are Nature's great elements. Caloric and electricity fortify the constitutions of animals as well as vegetables. Caloric, light and electricity force the growth of hot-house plants, and stimulate animal life. Both require water—the vegetable externally, the animal internally, as drink. Caloric will melt fats at 140 degrees, and in hot air baths liquefy the sebaceous matter of the skin, facilitate its removal, and prevent fat deposits of heart, liver and kidneys. Caloric, at 240 degrees in the dry-rooms of the washhouses, dries clothing quickly, disinfects them, and kills vermin and their eggs, which boiling water cannot; at 160 degrees it will coagulate animal tissues, kill animal poisons and contagions of every kind, and stop fermentation.

Dr. Carpenter says: "Perspiration has no weakening effect in itself, except by the diminution of the water in the blood, which may be resupplied from the stomach, appears from the fact that if persons exposed to high heat make no bodily exertion, they experience no loss of vigor if copiously supplied with cold water; such exposure may conduce very much to invigorate the system." "The fatigue from muscular exertion at high heat is generally set down to excessive perspiration,

although it is chiefly to the interference with the vaporous, or the insensible transpiration, for the same fatigue is experienced when the atmosphere is loaded with moisture, even at a low temperature; or from wearing water-proof garments, which not only keep out the rain, but keep *in* the insensible perspiration."

These remarks from such a distinguished medical authority, seem decisive in favor of the hot-air bath. Fever is a poison of the blood, manifested by high heat and muscular prostration, while copious perspiration is the process to cool, or a crisis for throwing off morbid matter, after which the body regains its health and strength. Cold water to drink and pure air to breathe seem well calculated to aid Nature in all her vital functions to remove a variety of diseases, and to restore health. Water is a chemical compound of oxygen and hydrogen that undergoes decomposition in the stomach; air is a mechanical mixture of oxygen and nitrogen.

Man is man only through that light of reason implanted within him; for he who cannot reason is a fool; he who will not is a bigot; he who dare not is a coward; but he who can dare, and will reason, is of strong mind and noble soul—fearless, firm and free.

CHAPTER XV.

FACTS IN REFERENCE TO PERSPIRATION.

THE sweat or perspiration is the fluid or moisture that exudes from the unbroken surface of the body. Some parts give off more than others, but none are entirely free from it. The odor differs slightly according to the part from which it arises, the most odorous being that from the armpits, the region of the fundament, and the feet. The perspiration from each person varies slightly in composition, though in all there is a great general resemblance. The amount given off daily varies from two to three pints. The state of the individual, of the air, and season of the year have great influence. In the heat of the summer we perspire more than in winter. During exercise or exertion more is lost than when at rest; and fear causes an increased secretion of it. Hot fluids and foods cause us to perspire, as they impart undue heat to the blood, which must be got rid of, the superficial blood vessels then dilate and receive additional blood, the sweat glands secrete more actively, and so more perspiration escapes. The blood is the source from which the sweat arises; it is secreted from this by a minute apparatus, called a sweat gland. It has been calculated that our skins contain seven millions of these glands; the tubes leading from these to the outer surface of the skin would, if put together end to end, make a pipe twenty-eight miles in length. The perspiration is

composed of various salts, acids and water. The commonest form of mineral matter in the sweat is common salt, then acetate of ammonia, and we find various fatty acids, as the formic, acetic, butyric, propionic, caproic, caprylic, and some volatile ones which help to give perspiration its peculiar odor.

Perspiration has been divided into the *sensible* and *insensible*. The sensible is that which does not evaporate from our skins, but form beads or drops of water-like fluid on the surface of the skin. The insensible is that which is always escaping from the surface of the body, but being in vapor we are unconscious of it. The perspiration is usually alkaline: if plentiful it stains the linen, and if it soaks through the underlinen to the outer garments it will cause them to change color. Ladies overcome this in a very simple way. As the armpits are the spot from which most escapes, they sew on the inside of the fold of the dress at this spot a small piece of mackintosh or waterproof material; some sew pieces of flannel in the underlinen, and remove these when stained. The latter is the better plan, and men who perspire much may adopt it with benefit. The function of the sweat is to cool the skin, and remove from the system a certain amount of its waste products. Sweating is useful in disease, for if the lungs or kidneys are diseased or damaged, the skin will aid the system to throw out waste, and so preserve and prolong life. Knowing this fact should make us keep the skin in good condition, so that we may not overwork the internal organs.

Those who eat much flesh or animal products, have a stronger and more pungent sweat than vegetarians, and their perspiration also contains more solid waste matter.

The lesson we should learn from these facts is to keep our twenty-eight miles of skin-pores open by a daily rub all over with a dry or wet towel, flesh-brush, or some like contrivance, and once a week cleanse the surface of the skin with a Turkish bath. Those who are young and vigorous will do well to flush their skin glands by taking exercise until they perspire freely; then they should have a dry rub down; expose the body to the air and let it cool gradually.

The perspiration may be deficient, offensive, or it may be excessive. All of these conditions are wrong. It is deficient oftenest where there is some kidney disease, as in diabetes, and in Bright's disease. In these cases this deficiency is due to a large amount of water being excreted by the kidneys, and so there is little for the skin to get rid of. Persons who suffer from chronic rheumatism usually have very dry, harsh skins, and little sweat. In the early stages of fevers, also, the skin is very dry and hot, whilst in certain skin affections it is merely dry.

In some the perspiration is very offensive, and causes annoyance. The feet, armpits and genitals are the parts most affected. This excessive perspiration is caused by wrong habits and improper food. As I have already said, meat foods cause more offensive perspiration than vegetable foods, and those who live indoors and do not exercise freely will have a stronger smelling perspiration than those who exercise regularly and always breathe pure air.

Excessive perspiration is found with many complaints, and even natural conditions. It is seen during violent exercise, during a Turkish or hot bath, and sometimes even after drinking hot fluids. It accompanies many

diseases ; thus in rheumatic fever it is excessive, and of a sour milk-like smell ; also in gout. In fevers it nearly always occurs when the fever is at its height, and, as a rule, recovery takes place after this violent sweating. In fact, many fevers begin to decline as soon as this commences. When a person is feverish, or has a cold and he begins to sweat profusely, we may know that the worst is over.

In most cases where there is a tendency to natural perspiration, a determination of blood to the head, or where there is reason to suspect the existence of chronic disease in the brain, artificial sweating, if employed at all, must be practiced with very great care and discrimination.

As a rule, however, with the repetition of the Turkish bath great changes for the better take place ; at first the perspiration is small in quantity, clear in its nature, and difficult to be produced ; as the patient advances, it becomes more profuse, and impregnated with the most disagreeable odors,—viscid and glutinous,—of a dark yellow and even brown color, and sour, fœtid, &c., in its smell. When these morbid phenomena appear, the perspiration may be considered of a critical nature. As a general rule, where there is no evident reason why this process should not be used, sweating, followed by the cold bath, is *not* debilitating ; what is lost in one way is repaired in another. The appetite is so much increased, and the functions of the skin and digestive organs so improved, that the loss of a little fluid by sweating has only a salutary effect. Fat is replaced by hard elastic flesh, and languor and debility give way to a state of cheerfulness and activity.

It is necessary to bear in mind that it is not the mere

pouring out of sweat that relieves or cures disease. What is desired to be done by the sweating process is to rouse the system to those efforts of cure which constitute the peculiarity of treatment by the water cure. The sweat poured out is only an indication that these efforts have been made; in the same sense that the crisis is only an indication of similar efforts on a more continuous scale. Hence, if we find that the process taxes the patient's powers, and especially his head, it is proper for the first time or two to take him out when a considerable heat has accumulated in the skin, and *before* any sweat has flowed. In this manner we are enabled to *coax*, as it were, the skin into sweating, without exciting the brain and nerves in a harmful way; for after a few trials of this kind, the skin opens and gives out its fluids, without any injurious straining of the system.

Another way to counteract the headache which sometimes attends sweating, is to place a towel well wrung out of cold water *over the stomach and bowels*, and one on the head.

Hot-air baths with the exclusion of the head, is a very different thing from sweating, as has been done, in rooms heated to 150 degrees of Fahrenheit, the patient *breathing* air at that degree of temperature.

The inhalation of hot and dry air is in every way deleterious. It carries off all the moisture that ought to lubricate the windpipe and air passages of the lungs, and thus renders the mucous linings of those parts especially sensitive. Not only so, the immediate contact of the stimulating atmosphere with the sensitive lining of the air-tubes was never intended by Nature, and the mucous is poured out for protection from such

contact. Accordingly, this hot, dry air, by abstracting the moisture, tends to produce cough and sense of stricture about the chest. This is the leading objection to the use of public baths, and is a very valid one.

But farther, it is in complete opposition to the principles of the water cure *to inhale* heated air at all. Rightly proceeding on the doctrine that the blood is to be rendered healthy, so as to permit the body to work its own restoration, the admission of pure, cool air into the lungs for the purpose of oxygenizing that fluid is above all essential. Now, hot air being rarified, does not contain one half the oxygen that cold air does, and the blood consequently loses just by one-half its vivifying and strengthening agency: the dark blood from the veins is not sufficiently changed by the air, and a blood unfit for the purposes of life is allowed to flow through the body, and especially in the brain, where it congests, and produces the tense headache that attends the inhalation of hot air. The consequence of all which infallibly is, that when rheumatism, and one or two other complaints, are *relieved* by this hot-air sweating (and they have been so relieved), their return may be relied upon; no *cure* has been effected, because the very first principle of cure,—the formation of a healthy, rich blood, to enable the body to effect its own restoration,—has been sinned against. It is one of the abuses of the water cure that ought to be deprecated by all who understand that cure and wish its success.

The Turkish bath cabinet that allows you to breathe cold, pure air is the only one that I recommend; the usual public baths are to be avoided.

Dr. Armstrong, lecturing on congestive fever, stated: "While the fatigue from a hot-water bath 110 degrees

is frequently fatal, the hot-air bath does not so fatigue; it will bring pounds of blood to the surface which were suffocating some internal organ; it will balance the circulation sooner than any other means. The patient is raised, as by the touch of a magic wand, from weakness to strength."

Dr. John Fife, says: "My anticipation as to the success of the Turkish baths in the treatment of disease have been fully realized. The temperature ranges from 130 to 160 degrees, according to the nature of the disease, state of the circulation, and condition of the patient submitted to it; though the extreme heat exerts less influence on the heart and circulation than the ordinary warm-water bath. I may state that some cases, in which the pulse and stethoscope gave unmistakable signs of heart disease, such patients have undergone the process without attendant mischief, and with almost unlooked for benefit. In the dropsy, resulting from liver and kidney disease, the perspirations have afforded more relief than could have been attained by medicine, and with less exhaustion to the system. Catarrh and influenza, in their first accession, have been arrested—the outset of the ague fits averted—whilst in acute rheumatism, and in the various forms of skin disease, its use has proved invaluable."

The statements that the hot-air bath is injurious where there is congestion of the heart, brain, lungs or liver, are completely refuted. These baths are more required in winter even than in summer, and those who value long life and good health will take one once a week all the year round as the most healthful luxury of life, the best preventive of disease, and physical strengthener of the animal frame, and of all the vital functions.

Small-pox, a skin disease, decimated the American Indian race, and the Saxon and Celtic races were cut off by the same scourge, which seems to have come into Europe as the thermæ of the ancient Romans went out of general use. Curious small-pox, scarlatina and cholera, which now form the triple scourge of mankind, were unknown to the ancient Greeks and Romans, as if they were inflicted as a punishment for our singular neglect of the physical virtue of personal purification of the skin in latter ages. The skin, the safety-valve for all the inner vital organs—their sewerage—requires to be purified. It was the chief organ consigned specially to man's own care, and placed within his observation, and, notwithstanding, it is the one most neglected.

Sir James Clarke, on *Pulmonary Consumption*, states that one-third of the mortality arises from tubercular diseases. Scrofula and consumption are one disease in all essentials—the result of depraved blood, caused by defective respiration.

Whole armies are being decimated prematurely by a preventable disease, dragged up into life and drugged out of it by the indiscriminate use of cod-liver oil, which is capital food for Laplanders, but generally gross, luscious and disordering to the delicate stomachs of more refined people.

The true way to administer oil is by inunction through the skin; but the skin should be first prepared, purified, purged, by a hot-air bath to receive it. We would not force food upon an overloaded stomach, neither should we force oil into the pores of the skin until they be dis-embogued of their impurities, and then olive oil should be used instead of cod-liver oil. The old Romans first purified themselves with a hot-air bath, then anointed

their bodies with perfumed oils, and then prepared to dine. The rich are equally as subject as the poor to consumption, because they are exposed to the vices of respiration, and the neglect of perspiration. Instant death from suffocation would occur if the whole body were varnished or gilded over imperviously. The skin is a vital organ that should breathe, and not suffer from a vice of respiration, that prolific source of tubercular disease in man and animals. The wild animals confined in menageries, and the domestic animals which are neglected in the amount of pure air, active exercise and natural perspiration—all become more or less the victims of tubercular disease.

Now, muscular exercise excites the union of the oxygen of pure air with the carbonaceous matters of the body, to consume them. For those who cannot have a sufficiency of air and exercise, the hot-air bath supplies a substitute—to purify the blood by perspiration. The strengthening effects of these baths are being established by the pugilists and pedestrians who frequent them, and doubtless they will soon be had recourse to in military training and discipline, to promote the psycho-physical health and the athletic energy of soldiers, and thus fortify them for the fatigues of war. Whatever system of training would most promote these objects must become the most formidable element in the profession of arms—in the art of war. A most important lifeguard will that physician be who can establish these vital facts. No one can be disfigured with blotched face, or any form of eruption of the skin, if they take the hot-air Roman bath.

It is absurd to send consumptive patients to hot climates when they can enjoy at home the beneficial

influence of a hot-air bath to suit each case, and can have in two hours more impurities of blood removed from the system, through the skin, than could be removed in a two months' residence in a warm climate. The influence of these baths must surpass that of the high, dry mountain, or marine atmosphere, so much lauded for consumptive patients, for they are better calculated to regenerate and retain animal electricity within and upon the human frame. Through their salutary influence each of us may become a personal reflector of health—a living, legitimate glass of good spirits, of health and vigor.

It is purely a noble profession which qualifies a man to teach his fellow-men the science, the alphabet of life—how to extinguish maladies by physical education, how to promote long life in good health. It is a source of great gratification to co-operate in the diffusion of vital information, calculated to prolong the lives of millions of mankind, or to protect them—so far as strict observance of the laws of Nature can do—from sudden and premature deaths. What can be more saddening and frightful than the perusal in the public papers of verdicts, after sudden heart or head attacks, “died by the visitation of God,” or from “natural causes,” although the whole life of the deceased was a living contradiction of the Divine precept—the physical virtue of personal purification—his habits were more or less suicidal and self-poisoning, to the special neglect of the depoisoning processes which can alone secure the normal equilibrium of health. The *horse* is well cared for; but man—the lord of creation—is neglected by himself. These baths are the most powerful and general eliminators of morbid matters from the blood, and have the

salutary influence of a universal blister all over the body, by drawing peccant humors to the surface, and thus relieve internal congestions, act as the safety-valve to the heart, and flush out the whole cuticular sewerage from within.

There are many really good and amiable people who can command all the comforts of life, but are ignorant of the laws of life, of the very alphabet of their own existence—who fancy that their family drug-doctor only understands their constitution; accordingly, they become drugged and redrugged. Many a living specimen of refined porcelain—the victim of light literature and needle-work, walking wax-works—is sacrificed at the shrine of household purgatives, &c., while over-eating and erroneous diet is the cause.

These people should know better. The ignorance of such drug-victims, and the interests of the drug-doctor, are both arrayed against you. The stomach alone, that “center of sympathies,” is to be stormed and subdued. You consult its index, the tongue—that never told a lie—and act accordingly. Schiller truly said, in 1780, “A physician, whose horizon is bounded by an historical knowledge of the human machine, and who can only distinguish the coarser wheels of this piece of intellectual clockwork, may perhaps be idolized by the mob, but he will never raise the medical art above the narrow sphere of a mere bread-earning craft.” Mind and matter must be considered in common, to comprehend the whole man. The earthly tabernacles of our immortal spirits require personal purification, in order that our mental faculties and physical functions be well conducted. By this means we may hope to reduce poor law and lunatic asylums’ medical expenditures. It is due to dignity of

human nature to introduce man to himself—to his sublime essence, Being—that divine diamond gem that sparkles in his intellectuality with living light, and through which alone he is man, and the lord of creation.

Many a portly lady and gentleman, happy because not suffering, who are moving mines of undeveloped disease, do we see every day, who might be happier and healthier if they could only enjoy the peaceful pleasures of the bath, visit its paradise once or twice a week all the year round—in winter even more regularly than in summer. The true way to prevent disease is to put your house in order, to purify your blood, *yourself*, in the bath. If we neglect this salutary condition, the leaven of epidemic disease will ferment the stagnant materials, the dross that accumulates and chokes up the cuticular sewerage of the skin. If the vital germs of animals and plants superintend the construction of living fabrics of their own typical forms, by the three vital workmen or agents, heat, light and electricity, from the three materials, air, earth and water, we can comprehend how each epidemic leaven will ferment its own peculiar disease through the same vital workmen, from morbid materials, provided there be within the body a due supply of them. All that is required is the materials, and one pestilential germ will propagate disease from such suitable soil, for “a little leaven corrupteth the whole mass.”

I am inclined to believe that the thermo-electrical bath will yet be found as useful for the removal of cholera-blood poison as it is now ascertained to be for cattle distemper, for in both diseases we should aid Nature's life-guards, the skin and lungs, to eliminate blood poison; moreover, in cholera the patient is so

deficient of animal electricity that Nature, by the extraordinary muscular efforts or spasms, endeavors to reproduce more, for muscular action signifies electric genic action. Should we not, then, aid these efforts of Nature by a thermo-electrical bath, while we also supply to the blood its lost materials, the electro-excitant, saline and serious solutions?

What is the Turkish bath? In one sense it is the laying down of half the troubles in existence—a regeneration into new life—a thorough inspiration and reinvigoration. It brings ease to the body and calm to the mind; it revives the weary; cheers the sorrowful; pours balm around the pain-racked limb; elates and comforts the heaviest heart; gives a man a new lease of his youth, with all its abundance of strength, and all its golden dreams.

In drops, in streams, in rivers, perspiration pours out its flood; your face is bathed, your limbs inundated; the seven millions of pores free themselves from the bond of long imprisonment. You sit quietly communing with yourself, saying, Am I to be all dissolved, a mere human solution?

The heat is great; you care not; your pores are open, free, and rejoice in their freedom; heretofore they were sealed, and your sublime mind an imprisoned essence suffering in stygian suffocation. You fancied yourself clean because you took a morning sponge-bath. Clean! you don't understand that word until you are *cleansed*. You will roll off a mass of cuticular dirt but for the evidence of your senses you could never have believed belonged to you. After completing the sweat, you get into a tub of warm water, then turn on the cold water, following it up with a douche. Oh! the enjoyment—

there is no pleasure to compare with this elysian delight. The reaction calls the blood to the surface, the skin glows with health and vitality, you court the cold water, and embrace it. You depart with difficulty from this paradise. You then retire for the night to enjoy blissful slumber; or, if the bath is taken during the day, put on your clothes—walk forth a regenerated man—a king, the monarch of your inner world. What a difference between yourself as you walked in, and yourself as you walked out of this magic place; as if the matter of your body was all revolutionized—reformed; while the man remained “at once another, and the same.” You feel that your spirit is buoyant to fly, if you had only the wings. You enjoy all the freshness of rejuvenated life, and you echo the sentence of Glacus—“Blessed be he who invented baths!”

The bath is to man—comprising his liver, kidneys and skin—that which the sun is to the whole world and its inhabitants—regenerative, life-giving.

It would be impossible to lay down a set of rules for taking the bath suitable to every one, as the healthy after the first one or two baths may take it almost as they like, while the delicate must feel their way—a long bath at a low temperature suiting some, and one of fifteen or twenty minutes being more agreeable to others.

In the same way some will cool in five minutes, while others will take half an hour; therefore, experience and common sense are the best guides.

Persons with a dry or inert skin may experience headache and palpitation. The best way to hasten perspiration is to drink and also bathe the body with hot water immediately after going into the bath, and if the

feet are cold, an extra amount of heat applied to them will be found beneficial.

To the healthy nothing is more agreeable than finishing the bath with a cold douche, while the delicate, unless under advice, should confine themselves to tepid douching and splashing with cold water from the knees down.

A person getting faint in the bath will be immediately revived by being taken out for a few minutes, or by pouring cold water from the knees down, and drinking water and bathing forehead with cold water.

The Turkish bath has long been employed not only as a medium for cleansing the body, but also as a curative agent in disease by producing copious perspiration, and in this manner inducing the system to eliminate through the pores of the skin poison that otherwise would be retained, to the great detriment of the health of the party employing this means to assist Nature in restoring a normal condition of the physical forces. From the earliest ages of antiquity down to the present time, heat has been an extensively courted factor in affording respite from physical suffering. It has been fully demonstrated by recent investigations that heat not only possesses anæsthetic properties, but will speedily mitigate local inflammation, contribute to the elasticity of capillary circulation, thus producing absorption of intra-articular and hypodermic organic deposits. That these properties have failed to meet with earlier observation can only be attributed to the fact that the apparatus employed for the administration was inadequate for the production of positive results.

Every person who possesses an intimate acquaintance with disease is familiar with the frequent inefficacy of poultices, hot sand and salt bags, and how imperfect

hot fomentations are in regard to therapeutic results, omitting the trouble of adjustment. These complications have, however, now been relegated to the past since the invention of a dry hot air apparatus, which possesses a very material advantage over the Turkish bath, from the fact that the heat can be more evenly distributed on any certain member of the body, as, for instance, a leg or an arm. These hot air machines are made of an oxidized steel, cylinder in shape, and isolated with layers and attachments for the treatment of the extremities (lunar region), hips and shoulders. The heat is generated by gas, wood alcohol or special gasoline burners. The heat is registered by a thermometer contained within the cylinder, and can be regulated or furnished with fresh air by employing ventilation valves. They are manufactured under patents, and, in consequence of the cost, are not brought into as universal use as their merits in mitigating and subduing disease would entitle them, but I hope in time all obstacles will be removed, and that they will be placed within reach of all. They are extensively used by the National Institute of Science, Chicago, for the treatment of sciatica, sprains, accidents, lumbago, myalgia, tonsillitis, muscular and articular rheumatism, gout, &c., &c., as well as effusion of joints, arthritis, &c. Many of these diseases are relieved by one treatment, while certain forms of rheumatism and gout require a number of treatments.

Suffering can be speedily and successfully combated, but the perfect freedom of the joints and the diminishing, if not the total banishment of the deformity, would demand an extended course of treatment. The blood becomes heated from 1 to 5 degrees, hence the circulation is proportionately quickened, and largely to these

facts are due the beneficial results, as the many avenues of the human system are invigorated and metabolism is prompted. The number of treatments required for each case is controlled by the susceptibility of the individual system to curative influences and the character and quality of the disease, as well as the results demanded.

The mere checking of the disease and the relief obtained from anguished suffering suffices for some, while others are rendered more punctillious in conforming to a more perfect hygiene and an appropriate diet; again others are satisfied in time of need to embrace the curative influence of their warm old friend the hot air machine for a prophylactic treatment, when they are reminded by a kindred twinge of pain of overindulgence in "the flesh-pots of Egypt."

In systemic diseases, the ovaries, and in catarrhal conditions of the uterus, in brief, all diseases of the trunk, the hot air machine can be safely employed when its registry is as high as 260 degrees Fahrenheit. With a temperature reaching to 350 degrees Fahrenheit, the arm and leg machine concentrates most favorably its force on local developments of both disease and traumatism of the extremities, and although comparatively recent, the local treatment of painful and inflamed joints by dry hot air is now admitted, and is a well-established fact.

In the treatment of acute, chronic, articular, muscular and so-called gonorrheal rheumatism, synovitis, gout, Bright's disease, coxitis, as well as a host of maladies, hot air can be employed with signal benefit. The employment of hot air in eradicating disease had its origin with the ancient Greeks, but to mechanical ingenuity of a recent date that high degree of perfection

in affording a pleasant and effectual method of appliance is to be credited to the Sprague and the Betz Hot Air Therapeutic Apparatus. The results of this treatment can be enumerated as follows: Succeeding the first bath the intensity of the pain is reduced; inflammation subsides, to a certain extent, after each treatment; adhesions, effusions and deposits in joints are absorbed; ankylosis removed; flexibility of joint or limb is restored, and the affected parts brought as nearly as possible to a normal state. Their hot air apparatus will be found invaluable in the treatment of acute sprains, loosening adhesions and softening contractions seen in old sprains of athletes, when a limited number of treatments have enabled the patient to obtain more freedom of the joint than perhaps he had enjoyed for years; hence, this is a valuable adjunct to gymnasiums or athletic training.

Massage, properly applied, will also be found beneficial in conjunction with the hot air—250 to 350 degrees Fahrenheit is comfortably borne by the patient. Care should be observed that the afflicted part is not allowed to become chilled succeeding a treatment. That the application of such intense heat must be prolific of a great deal of good is obvious. Anyone employing this method will testify that it is productive of no harm, but of good only. It makes the patient feel comfortable, but not overheated; relieves the pain in a few minutes. By this method effusion is absorbed, inflammation reduced, which is explained by the physiologic properties of heat; hence, it will remove any form of arthritis in which the damage sustained is not beyond repair. It both soothes and stimulates, and has long been recognized by both the profession and laity as humanity's best friend, and thousands of testimonials from

those who have been treated pronounce it an inestimable boon to the afflicted.

A temperature of from 250 to 400 degrees Fahrenheit applied to a diseased part in a case of chronic rheumatism, has proven uniformly successful. This will be found equally efficacious in neuralgia or sprains.

Dry heat will in course of time prove the balm of Gilead to all the chronic ailments which afflict humanity, as well as in the treatment of sores, abscesses, &c. Experiments alone can tell to what extent the application of dry heat can be relied on, at the same time the mechanism of the human body and its telephonic centers will furnish intelligent instruction regarding the search.

It is a universally known fact that heat is a germicide, and these improved apparatus would, therefore, be naturally looked to, to sterilize all accessible tissues and contribute superior assistance in the treatment of sores and abscesses of numerous types, both deep and on the surface.

Not only the diseases enumerated above, but a wide range of others, particularly of a bronchial and asthmatic character, general neurotic conditions, diabetes, asthma, &c., are successfully treated by hot air; the skin and kidneys being stimulated by the hot blood, the circulation is brought to the affected part, and the general economy is invigorated.

In the thousands of treatments that have been given during the present year, very many intensely interesting types of disease have been brought to light; the major portion of them have been greatly relieved, showing that we are not yet in the full knowledge of all that superheated dry air can do for suffering humanity—acting as well on deep-seated tissues and internal organs as on the outside of the body.

To mitigate the sufferings of man, to contribute to his welfare and happiness, to prolong his habitation on earth, is the duty of every honest physician, and, unless he has a very elastic conscience, he will bring into requisition every available means to conduce to this end.

There are many reasons why the masses have not sufficient forethought to ward off disease, but perhaps the chief one is that they consider disease a Godsend.

Perhaps nothing tends more to perpetuate abuses, or lead to supineness and indifference, than the vague superstition in most minds that the existing state of things is "the will of God." Most emphatically do I deny this disparaging view of Nature's providence. Dare any one say it is by "God's *will*" the drunkard drinks himself to death; that the children of inebriates are mad or idiotic; the family of improvident parents ruined; or the suicide makes his own grave;—and not rather acknowledge in these results the inevitable consequences of immutable laws, which makes sin its own punishment?

Recognize in evil "God's *will*," and at once you strike a blow at all exertion. But let us thoroughly satisfy ourselves that it exists only by God's *permission*, and all the energy of our nature rises in antagonism against it, as subversive of God's moral code and all earthly happiness. The tendency to all Oriental fatalism existing among our people makes the clear elucidation of this doctrine an important duty. They never see any cause for self-reproach in the illness which sweeps away their families, because they do not understand that God no more interferes to arrest the exhalation of poisonous gases from every form of dirt, than he does to prevent a

man from getting drunk who swallows raw whiskey. Death and difficulty always present themselves to their minds as "God's will," and therefore they passively resign themselves to every form of suffering, believing it a certain proof of the Divine favor.

Oh, what ignorance, superstition and blind credulity! Truly "none are so blind as those who *will not* see."

Unfortunately the people are always prone to believe in such sacrilege upon Nature and in the hidden charm, the secret spell, rather than in that compliance with natural law on which health depends, for to the untaught such means seems too simple to be of any avail. But enforce the law of brotherhood, which will lead each man to say, "I will not be drunk nor dirty; I will do no wrong lest I may injure another," and you strike at the root not only of one form of epidemic or another, but of most of life's evils.

Many a hopeless victim to the tyranny of bad habits might have been saved by the early inculcation of a few scientific truths; and, were it otherwise, and the effort useless, it would still deprive the lost ones of the power of reproaching the instructors of their youth with having neglected a duty.

When such sad consequences are the result of defective teaching, must we not hold authority morally responsible for the results? A vast and influential portion of those in whose hands education lies, in their anxiety to keep their pupils innocent, end by also keeping them children. I hold ignorance is not innocence, but often its greatest snare; because, knowledge is not evil, but that which would be a safeguard against it, and a guide when good intentions and ignorant efforts are but a weak support. Take alcohol, for example, which, according to popular

belief, is a universal panacea, curing pain, weakness, delicacy; the first remedy for every evil to which man suffers, and, but too often, the last solace offered to his dying lips. What caution against these delusions is ever given at school, though a host of intelligent men have for years warned society against it in words as emphatic as the following: "It begins by destroying, its end is destruction; it implants organic changes independently of its presence even in those that are not born."

All the land and labor employed to produce malt and hops for beer, grapes for wine, and grain and potatoes for distillation, is land and labor wasted; in the production of poverty, ignorance, vice, crime, disease and death, much worse than wasted.

Alcohol is not a necessary of life, in any quantity or in any form. There may be little harm in the light beers of Germany, or the light wines, but it cannot be shown that there is any good. Fermentation is always the destruction of a nutritive element, in place of which we get a stimulating, intoxicating, debasing and diseasing element. Millions, hundreds of millions of men have never tasted wine, or beer, or spirits, and no one will pretend to say they are the worse for it. If every kind of distilled and fermented liquor could be banished to-morrow, the food, the wealth, the productive power—the health, prosperity, and happiness—of the country would be immensely increased.

Tobacco, which was introduced into Europe about three centuries ago, and spread from Spain and France to England—and a century later to Turkey, and across Asia—if not so great an evil as alcohol, is yet an enormous waste of life. It is not food; it is a poison. The

habitual stimulation of the nerves by any drug cannot but be a cause of disease. Tobacco saturates the whole body, poisons every nerve, and specially affects the reproductive functions. Where the use of tobacco is confined to one sex, this effect is not so obvious; but where it is used by both, the increase of population is checked. Women employed in the tobacco factories in America seldom have children. Nations in which both sexes smoke decline in population. Tobacco, therefore, goes even deeper than alcohol in its waste of life.

The waste of land and labor in the production of a mere luxury, and of time and cost in its distribution and purchase, is almost beyond estimate, and second only to that of alcohol.

For three centuries a large portion of the wealth—the product of the labor of the people of the U. S.—has gone to China for tea, and a smaller portion to the East and West Indies for coffee. Their nutritive value is of no account. They are nervous stimulants and narcotic poisons; costly luxuries, but in no way necessities of life. They stimulate the brain, but they do not strengthen it. Shakespeare and Bacon, and all the strong men of the preceding age, did very good thinking without tea, or coffee, or tobacco. They are neither of them necessities of life. There is no doubt that we would be healthier, stronger, better without such luxuries. Even if those who have formed habits of using them continue their use, all children should be brought up in freedom from such habits. The longer all children are kept from tea, coffee, beer, spirits and tobacco, the stronger will be their nerves, the purer their blood, the more perfect their health, and the better their prospects of a long and happy life.

The remedy rests with parents, with teachers,—with all who have care of the young. “Delicacy” is out of place in questions of health and life. The doctor comes too late. We want prevention rather than cure. Every father and every mother should know enough of human physiology to understand the laws of life that affect the health and happiness of their children, who should be guarded from this as from any other of the causes of disease.

Unfortunately, few have time or inclination for the study of the higher branches of science, which, it is my conviction, if studied with a proper spirit, instead of weakening religious faith, would lead to deeper reverence, by showing that Nature has her mysteries as well as religion.

Legislators, educators, religious teachers, should make a study of physiology; and no education can be complete without it. Every human being should know enough of the science of life to enable him to guard his own health, and thereby secure, in a great measure, the health of his offspring. Especially should women, who have so much of the life of the race in their keeping, understand its laws. Animals instinctively do the best they can for their young. We have it in our power to know good and evil—to choose the one and avoid the other. Certainly every mother should know at least so much of human physiology as belongs to the reproduction of the species, the management of children, and the life of the race. Every woman has a right to all science that can guide her more securely in the path of life. She has a right to know how she can best perform her duties and acquit herself of her responsibilities. In these matters it is not knowledge but ignorance that is shameful, and shameful because it is dangerous. Surely

it is better to know of an evil and so avoid it, than to be ever so purely and sweetly ignorant, and thereby fall into it and be destroyed. He who shuts his eyes that he may not see a pit may fall into it and be smothered in its filth.

It is true that knowledge may in some cases facilitate wrong-doing. A chemist can poison; a marksman can shoot people; one who knows that water will drown, or that carbonic acid gas will suffocate, may choose one of those modes of suicide. But in all cases the knowledge does not give the disposition to abuse that knowledge. And it is so of all knowledge. It cannot be shown that physiologists are specially immoral. It is evident that the tendency of all science is the other way. Those who know most of the properties of alcohol, opium and tobacco, are least liable to misuse them. Those who know the dangers of vice will be most likely to shun them. Ignorance is no security to virtue or health, but is a great danger to both.

There is no filth in Chemistry, there is no impurity in Physiology—properly treated. No fact in Nature can be immoral. All immoralities are violations of natural law.

It is not to be forgotten that in the life of man we have more than the matter of his body to deal with. The mind of man—his affections, passions, and faculties—must be taken into account. The will of a man is a great power. His love or his hate is a force which controls his body, and may prolong or shorten his life. Grief paralyzes all the faculties,—it wrinkles the face, dulls the eyes, blanches the hair, produces a sudden physical transformation. Joy too great and sudden may kill; when not in excess it is life-giving. Love and

hope fill the soul, and therefore the body, with energy and power.

The body, being an instrument of the mind, and separable from it, should be made the best, and purest, and most effective instrument we can make it. That is, a pure, strong, healthy body is the best instrument of the mind; and an impure, weak, diseased body must be an effective instrument, marring the action and hindering the development and progress of the intellect. The old saying, "a sound mind in a sound body," was worthy of philosophers. We have only to consider the effects of drunkenness, of gluttony, and the action of various drugs upon the mental and moral faculties, to see the action of matter upon mind. We have also to consider the action of mind upon matter.

Every physician succeeds in proportion as he can excite hope and confidence in his patients. "If it were not for hope the heart would break." It is not the medicine that cures, but the hope it gives of cure. Thus doctors of all schools have about the same measure of success, and quacks of no school do quite as well, and succeed just in the measure of the confidence they are able to inspire.

A strong hope or a strong will in the patient triumphs over disease, in spite of death and the doctor. In all things a strong, determined will is a great power.

We are conscious of the animating, life-giving forces of love and hope, as we are of the depressing, debilitating, life-destroying influences of jealousy and despair. A word or a look may give us life, and words and looks have hastened death. In a happy love not only are the life forces distributed, but they are increased. The effect of separation and isolation is to depress, to weaken

all. In union is strength—strength to each one, as well as the united strength of all.

It is because man is a social being, dependent upon companionship for both physical and spiritual life, that solitary confinement is the most terrible of punishments—so terrible in its sufferings and in its effects that it is now but sparingly used, and only for the worst offenders.

The wise physician—and every man, it is said, is either a physician or a fool at forty—will never forget the influence of the mind upon health. Emotion of the mind will take away appetite, suspend digestion, cause vomiting, produce an overflow of bile, a severe constipation or sudden diarrhœa, and greatly quicken or entirely stop the action of the heart. What shows the action of the mind on the body more prettily than a blush—the sudden distention of myriads of capillaries to receive red blood, or the sudden pallor, caused by constricting arteries, that comes with a different emotion?

The mind causes heat or cold, muscular action or paralysis, and may modify every function and affect every organ of the body. For example, the sight or thought of food causes a flow of saliva—the mouth waters, we say for some food we are fond of. Maternal love produces a flow of milk from the mammary glands, and another emotion acts powerfully upon the generative organs. It is evident that there must be unhealthy books, as well as depressing or demoralizing society. We should choose our books as we do our companions, for the good and the happiness they bring us. Clarity may require that we should give the comfort and help of our society to the unhappy; but unhappy books may be safely let alone.

It is evident that we should never lose sight of the

mental and moral conditions of health and cure. Disease, in a multitude of cases, has its origin in mental and moral conditions. People are made ill, and ill unto death, by sorrow, trouble, jealousy, the loss of the vivifying influences of hope and love, and all the strengthening sentiments and passions. As there is no medicine like love and hope, there is no poison like grief and despair. Men and woman really die broken-hearted—suddenly, at times, but much oftener of a slow decline.

Therefore people want change of place, change of condition. No doubt we may “change the place and keep the pain ;” but in many cases we soften pain by removing from objects associated with our griefs. New interests are awakened. “Off with the old love, on with the new.”

But there is something more to be considered. Our minds act upon our bodies—that is evident enough. But our minds act upon the minds and bodies of others—indirectly, through speech and action ; directly, by a subtile influence, or nerve-aura, which seems to form a sphere about us, and which is in some way subject to our will.

The bird flutters helplessly under the fascination of the serpent, and becomes his prey. The mouse that never saw a cat before is paralyzed in its presence. A man, seized by a lion or tiger, falls into a dreamy half-consciousness—a sort of trance, painless and helpless. Those who make a study of life find analogous facts in our experience with our fellow-men. There are women whose fascinations few men can resist ; and there are men whom women find very dangerous. There is no doubt that some men can will other men to trust and women to love them.

This power of one mind over others is shown in many ways. Political leaders do not control men by logic. Military leaders have what is called magnetic power. This great and wonderful science is now fully developed and scientifically taught, under the name of Personal Magnetism, by my son, Prof. L. H. Anderson, of Chicago.

It is evident that such a power may be used for the relief of suffering and the cure of disease. It is used every day unconsciously ; but it is better that it should be used intelligently and that we should know that we have the power to help our friends by active sympathy. Fervent prayer unconsciously takes with it this form of sympathetic action. So does the ardor of love and the warmth of charity. The influx of "Personal Magnetism" comes with the "laying on of hands." It flows from the finger-tips. It permeates brain, spinal cord, and still more, perhaps the great centres of the nerves of organic life.

Magnetism is only another name for Vitality itself. It is the principle of life, animating all being and matter, permeating all space. It is the wonderful and all-sufficient power in Nature, operating by its own occult law and living energy, as good as it is mysterious ; surpassing the knowledge of untutored intellect and as extensive as the illimitable universe.

Personal Magnetism is the power, the acquisition of which enables one to influence and control others for good. Every one possesses latent powers in which are germs of possibilities so high and God-like that only those who attain them can form any adequate idea of their strength, beauty and grandeur. Success is the realization of the development of this latent power. Through this influence you can well-nigh defy the

elements, mock fate and ignore destiny, bend others to your will, influence and draw friends nearer to you, win their undying love and constancy, gratify your most cherished wish, penetrate the minds of others, attain to the highest flights of your ambition, and realize the fondest hopes that lie within the limits of human reason. Man alone of all the animals feels within him a craving to know the use and meaning of life. There is only one way in which this desire can be gratified and that is by learning the laws by which human life is governed, and by living in harmony with those laws. He who has found the law has the power to enjoy what others who are in darkness and ignorance can never have.

Can you afford to deny yourself of such a blessing?

CHAPTER XVI.

THE RESURRECTED HYGIENE.

HYGIENE is the science that treats of the warding off of disease and the continuation of perfect health, and the human mind can grapple with no theme that is so vitally important. Deprived of health life is robbed of its greatest blessing, and becomes but little more than a Sahara desert. Though a palace be the abode of a man or woman with millions at his or her command, deprived of health, the humble inhabitant of a Western dugout becomes rich in comparison, if blessed with that priceless boon of a sound, healthy body. I designate the system of health unfolded in this chapter, "The Resurrected Hygiene," because hygienic science is a recent claimant to the principle upon which it is based. It has been but recently demonstrated that the seat or foundation of nearly all diseases which afflict or snap the cord of life in the human family, exists in the alimentary canal or colon, and that a simple process known as flushing the colon prevents disease, the sick are restored to health and life and the enjoyment thereof very materially enhanced.

Like many other simple inventions the principle is so rational and uncomplicated, that it is a matter of comment and surprise that it was not long since made of practical use. Why it was not can only be accounted for on the hypothesis that the science of medicine has been plodding in a rut, and instead of eradicating the

origin of disease, has been taxing and spending its energies on complex theories of cure—an analogous case to the man who wasted his time and money experimenting with different chemicals, hoping thereby to convert into pure water a fountain into which was discharged an impure stream composed of barnyard drainings; the fountain would have rendered itself pure had he only have adopted the simpler expedient of eradicating the cause. Pure water, emanating from a pure source, would have quickly perfected that which in his assumption of wisdom the employment of expensive chemicals could never have accomplished. One object of this book is to trace the origin of disease and to emphasize upon the minds of men and women of practical sense that the most expeditious, and in fact the only way to battle with disease, is to eliminate its origin, thereby assisting Nature, that marvelous builder, to proceed unfettered in accomplishing its work.

The invisible, mysterious law of Nature builds up step by step, with wonderful progress. So the effective law of Nature, in mending and repairing, is the great healer of disease. All the self-styled physician can do successfully is to remove the impediments in an intelligent manner, thereby aiding Nature by rendering the conditions as favorable as possible. Thus medical science and the average physician, through misconception of these simple truths, have been led greatly astray in medical practice. Shining by reflected light in the borrowed livery of science, chasing an erratic theory which has no settled or permanent foundation of established facts as his guide, his patients are but the unfortunate victims of a constantly changing succession of chemical experiments. The drug system has at last

met its just doom, and a hundred years hence the present system of medication by drugs will be recognized with a feeling of holy horror, and be blazoned as a target of ridicule, as the world to day looks backward upon the doctor of a century ago, by whom the stream of life was tapped, resting under the egregious mistake that by so doing he was saving the life of his patient.

Indeed, the drug system deserves the precedent as regards error over the lancet. The patient is frequently occasioned more discomfort by its use, at the same time a heavy expense is entailed, while in effect both are equally disastrous in shortening human life. One impairs the system by robbing it of its vital, life-giving fluid, while the same result is accomplished by infusing poison into the system, thereby separating Nature's forces and imposing upon it another obstacle to conquer in addition to the disease. Did the vitality of the patient under the old blood-letting method prove sufficiently powerful to overcome both the disease and the loss of blood, his recovery was recorded as a great triumph of medical skill. If his death occurred, as was frequently the case, it was regarded as "a dispensation of Providence." So also does medical science achieve a victory, if the patient possesses vitality enough to overcome both disease and drugs. The M. D. has restored the patient to health, receives his thanks and remuneration in dollars and cents, and shares the spoils with the druggist. If, however, the patient succumbs to the additional strain, as he frequently does, it is accredited to the "mysterious will of Divine Providence." I doubt if this book has a single reader who cannot recall to his mind the case of some one who surrendered his life through malpractice; or, perhaps, *numerous* instances

of persons, who, while strong and robust, and to all appearances replete with vital strength, succumbed to an ordinary ailment under the ministering of a regular physician. It is a well-established fact in insurance circles, as well as among close observers, that the mortality is greater among those who employ physicians of the allopathic school than among those who are under the treatment of homeopathic M. Ds. The reason is obvious: the little pill prescribed by the homeopathist is less powerful, or used in minor quantities; therefore, Nature having less of the drug upon which to divide its strength and energies, has a more perfect opportunity to overcome the malady, and a greater proportion of the patients recover. But when no drugs are employed and the patient relies upon careful nursing, combined with Nature's own remedies, a still greater proportion are restored to health. Vigorous opposition has been and will continue to be brought to bear upon the new hygiene for numerous reasons, by the medical fraternity. The foundation of a large and unnecessarily profitable mercantile industry, the drug trade, in which the M. D. is largely interested, has been pierced by its influence. If, as is frequently the case, the M. D. compounds his own medicines, he charges an additional stipend to the cost for his visits as compensation for the drugs. If his prescriptions are filled at a drug store, it is a usual compliment for the druggist to give a certain per cent. of the profits to the M. D. in consideration for and appreciation of his patronage. It is an accustomed rule where there are a number of drug stores in a town for the M. D. to advise the patient to go to some particular one, where terms have been agreed upon, incidentally remarking that that druggist is more deserving of public confidence

than the others. Again it is something novel, arraying itself in opposition to medical teaching and the M. D's mental instruction and manner of thinking. Resistance under such circumstances is only human nature, even where no business interests are involved. When once accustomed to travel in a certain rut, human nature is very reluctant to be persuaded to change its course, and M. Ds. are, even more than other individuals, wedded to old fogysms. Dependent largely upon the literature of certain schools of medical thought, educated to regard those traditions "true as proofs of holy writ," the task for an M. D. to change his creed would very nearly approximate that of an Ethiopian changing his skin. Another reason is one that appeals very strongly to his selfishness, and exists in the fact firmly established: whenever the new system is called into requisition, that his calls are reduced one-half, thus rendering more slender his revenue, and as the world becomes more enlightened and reaches a higher degree of perfection in its knowledge relative to the laws of hygiene, the rates will proportionately decrease. The M. D., like the priest during the dark ages, feeds and fattens upon the stupidity, fear, and high-wrought fanaticisms of his followers.

We are groping our way through the medical dark ages, but the dawn of reformation is breaking over the world's fair rim, and behind the clouds the sun is still shining, and the time is not remotely removed, when, instead of making an experimental laboratory of the human stomach, the physician's occupation will be that of keeping people well, and his failure to do so will be a reflection and disgrace upon his professional knowledge. In China the physician is compensated for preserving

the health of the people, and failure to do so is his loss if they get sick. Yankee ingenuity and shrewdness have been derelict that they have not ere this conceived the thought, but while man retains his good sense and is rational upon all other subjects, his reason deserts him when he or his friends get sick, leaving him totally at the mercy of the family medical adviser. But reason will assert her supremacy in the coming time not remotely removed, and what will be the fate of the future M. D.? Like the clergy, when the people become surfeited with their recitals of eternal damnation, total depravity, and their picture of the trappings and linings of hell being that of the skull bones of children, the M. D. will acquiesce to the demands made upon him by the people. This new regime of things has already had its birth with the rich in our large cities, and this beginning will result in the end of the physician of to-day. The man of wealth will say to the M. D., I will give you so much as compensation for instructions for myself and family how to live to keep well, and the man will respond in its strictest sense by becoming a tutor, a demonstrator of physiology, hygiene, sanitary laws and the laws of physical life and health to every household. Frequently his opinion will be appealed to in locating the sleeping apartments, where half our lives are passed; where to place the windows, so that the guests, sunlight and air will find ready admittance; even the paper on the wall will be referred to his judgment and scrutiny. His commands relative to the location of the sink and water-closets will be obeyed by the plumbers, the shade-trees will be made to acknowledge his superior judgment, the out-houses will be subject to his approbation, and the drainage and cesspools quiver

at the approach of his footsteps. Exercise that will foster and develop muscle and bone; appropriate diet will be prescribed for the weakly, delicate child of the household; and so each member of the family will be obedient to the surveillance of this well-paid tutor. The sanitary conditions are perfect now, and the M. D. must be the judge of the quality and quantity of the raiment we wear, and its adaptability to our health, for life has a premium on its head in the M. D.'s monthly fee. He must prove himself a sanitary cook, and be chemically competent to prescribe food. When the family circle is invaded by disease he must ascertain the cause of it, and, if possible, eradicate it as expeditiously as possible, or order its removal. If any member of the family becomes a prey to diphtheria, scarlet-fever or other contagious or bacterial diseases, he must investigate the source in the pond near by, or the sewer, perhaps, or the privy-vault in the rear, or the one in the human body designated as the colon, damp and decayed vegetable or animal matter in or about the house or stable—in fact, anywhere among the numerous places where these diseases find a lurking place. Cleanliness will receive its merited regard, and perpetual disgrace and infamy cling to the family who has a contagious disease in their midst.

The expectancy of life, in the twentieth century, by both the coming physician and the local and State boards of health, will be lengthened from thirty-eight and seventy-two hundredths, as now, to one hundred years. Then will humanity accord the physician his just meed as a boon and blessing to the race, and no legal steps will be required to prohibit the quack from plying his vocation; for an observation of many years has verified

the truth that the successful so-called quack has a preponderance of good common sense, and the fact that Washington was not sufficiently fortunate as to have had the services of a quack, will be recognized to its proper extent; the nation might have longer enjoyed the blessings of his counsel.

Another to be deplored circumstance is, that the M. Ds. have educated the public in the same school in which they themselves received their training. A hundred years ago, the public when sick rushed to the M. D. to be bled—not figuratively, but literally. Now, when sick, “something to take” is the request made of the M. D. or druggist, and the patient, in blind confidence, swallows the dose, resting under the delusion that it will cure the disease. Nature’s repair-shop accomplishes the work, and the public is impressed with the belief that the prescription was the agent, when in reality it had nothing more to do with it than did the lancet a hundred years ago; but the patient readily acquiesces to being bled in pocket, and continues to stagger blindly along, believing in the infallibility of drugs and M. Ds.

Rapid progress in the medical profession is not to be expected until the people can be cultivated to that extent when they can see the necessity of relinquishing the idea that to be restored they must swallow some obnoxious drug. For reasons already cited, it is manifest that but a limited number of M. Ds. will reform in their methods of practice, and will require to be forced into it with much clashing and resistance. There are, however, exceptions to all rules, and fortunately, honorable exceptions to this one, in those who are willing to embrace and adopt any method by which disease may be

baffled, and beneficial results accrue. With some physicians, love for their profession surmounts the mere desire for sordid gain and the jingling of the dollars, and they view it as a progressive science as well as a means of livelihood, and will welcome these natural methods and employ them freely in their practice.

It is now no longer regarded as necessary by the thoughtful and scientific physician to renovate the system by removing bad blood with the assistance of the lancet, or powerful, drastic and debilitating drugs, but he comes to Nature's aid with bland, efficacious material indigenous to her, and thus assists her to battle and rout the enemy. This is much gained, but still will not suffice. The system should not be crowded with food and stimulants; it matters not their digestive quality, unless it is in a condition to assimilate them. To do this injures the patient instead of exhilarating him. A machine clogged cannot be made to work successfully, though carefully fed. Neither will a stove, although fed with combustible material, perform properly its functions if flues and draft are choked. They must be first unclogged and given vent, then the fire will burn brightly. Upon the same principle the human system, when clogged, although carefully fed, cannot perform its duty in repairing the waste and strengthening the body. It is not the revolution, but the friction that wears the machinery, and the impediments must be removed by eliminating the waste material instead of encouraging its presence. After the reign of the leech and lancet, it may be said to the credit of the old-fashioned physician that he respected more strictly this matter than does his modern successor. Purge, vomit and blister were the weapons employed, and if the patient possessed sufficient

strength to cope with the remedy he recovered, otherwise he quickly succumbed to "the will of Providence." The physicians of old failed to do what the resurrected method now accomplishes by flushing the colon and cleansing the stomach, ejecting the deleterious refuse from the system without any deteriorating or debilitating effects. By the aid of pure water it expels the mawkish, morbid matter obstructing the system, and it becomes pure and clean, ready to imbibe and take up fresh, healthy nourishment. The wonder is that the simple principle of this great discovery was not sooner put into practice. Had not the science of medicine been searching in the dark, pursuing false theories, guided by the *ignus fatuus* of popular superstition, it no doubt would have been.

When man violates and transgresses Nature's laws he must pay the penalty, and though he may be ignorant of the law he has transgressed, the debt is exacted of him just the same. Ignorance, carelessness or vice is usually the parent of disease. Fashion's demands, and the artificial life boon of modern civilization, are in a great degree responsible for the violation of Nature's laws, and those things will be more thoroughly recognized and understood by the general public at no distant day; then to be sick with a contagious disease will be looked upon as a disgrace.

The longevity of human life in the earliest history of our race was greatly extended as compared to this day. The reason may be cited from the fact that the people of that time lived in more harmonious accord with Nature's laws. Instead of the three-score-and-ten years allotted to man, the average life is now only about thirty-eight years, very effectual and convincing evidence

that the artificial life is the cause, and directly responsible for, the effeminacy, sickness, premature old age and early death. The age of sixty or seventy years should find man and woman in the full flush of their strength and vitality, and the age of ninety or one hundred in the complete retention of both physical and mental faculties. This blessing can be attained by the youth of this age if they will only abide by the precepts and admonitions of this book, while the man or woman of riper years can, to a very material extent, renew his or her life, and avert that unnatural condition denominated second childhood. If the body be kept cleansed from impurities, both internally and externally, but especially internally, and our lives relegated obediently to Nature's laws, the mental faculties will be brighter and clearer. From the body the mind receives its strength, therefore a weak, diseased body impairs and clogs the intellect, and dwarfs in some particular fashion its functions.

To those who will accept and follow the advice contained herein, the enjoyment and pleasures of life will be greatly enhanced, for with health and an understanding of the correct aim of life brought into practice is born health, wealth, happiness and long life. The method of the physician of fifty years ago to cleanse with emetics and purgatives the stomach and intestines, relieving them of the waste and deleterious matter, and getting the absorbent glands in proper condition, was correct in principle but erroneous in practice. If the patient was robust enough to stand his treatment excellent results ensued, but if the constitution did not possess the strength to submit to the test, he rapidly succumbed. In this resurrected method of flushing the

colon is rediscovered a means of carrying out the principle of the old practitioner shorn of its disastrous results.

This discovery relating to the condition of the colons of three-fifths of the human family, is surprising in the extreme; indeed, it is a matter of speculation that the prime factor in the production of disease-germs should have encountered such a prolonged oversight. It is not the unfolding of a theory, but the disclosing of a fact long concealed from the knowledge of the public and the medical fraternity by their cold, trivial conceits. An unpleasant fact it may be to their accepted theories of medical practice, but a fact notwithstanding, which can be readily and perfectly satisfactorily demonstrated.

The recent discovery as to the origin of almost all of the diseases that flesh is heir to in the human body, and destined to completely revolutionize the practice of medicine, was in this wise: A gentleman having died of inflammation of the bowels, a post-mortem examination was conducted in order to ascertain if there was some foreign substance in or adjacent to the ileocæcal valve, or in that apparently needless appendage the *appendicula vermiformis*. The autopsy exhibited a quantity of grape-seed and popcorn filling the lower enlarged pouch of the colon, and the entrance into the *appendicula vermiformis*. This, from the mortified and discolored condition of the colon alone, showed in an indisputable manner the cause of death. An incision throughout the entire length of the colon revealed the fact that it was filled with fæcal matter encrusted on its walls, and into the folds of the colon in numerous places, dry and parched as plaster, and so completely retarding the passage of the bowels that he was thrown into violent colic,—sometimes as often as once a fortnight,—for years,

and that large doses of powerful physic were the only means to contribute relief. The malady was pronounced by all the M. Ds. as bilious colic. This encrusted matter was plainly of lengthy formation, the accumulation of years, and although the remote cause, still not the immediate cause of his death. The bend in the colon on the left side, designated as the sigmoid flexure, was filled so completely that its size was increased to double that in its natural state, filling the intestine uniformly, and containing only a small opening the size of one's little finger through the center—this being the exit for the recent fæcal matter. The lower part of the sigmoid flexure, just before descending to form the rectum, and the left-hand upper corner of the colon as it diverged to the right, contained pockets eaten out of the hardened fæcal matter, in which were deposited eggs of worms and quite a quantity of maggots, which had eaten into the sensitive mucous membrane, producing serious inflammation of the colon and its adjacent adjuncts, and, as a recent investigation has established as a fact, had occasioned hemorrhoids or piles, which were of years' duration. The entire length of the colon was in a state of chronic inflammation, yet the estimate which this man placed upon himself was that he was in good health previous to the unfortunate eating of the grape-seeds and popcorn, and he encountered no difficulty in procuring a policy on his life in one of the most substantial life insurance companies in America.

The discovery described above, as recent investigations have clearly developed, is but a prototype of at least three-fifths of the human family, omitting the grape-seed and popcorn.

This is the progenitor, the fountain of old age and

death, for while it may occasion surprise, yet it is true that out of three hundred cases of autopsies held on the colon, representing nearly all of the diseases indigenous to our climate, only thirty colons were found to be exempt from encrusted, adhered matter, and in a normal, healthy condition, and that the two hundred and seventy closely approximated those described above.

In many of the post-mortems the colon was found twice its natural size, with a small aperture through the center, and, as far as could be ascertained, these last cases almost universally had regular daily evacuations of the bowels. Quite a number of the colons were inhabited by worms from three to six inches in length, and pockets of maggots, both fully developed and in an embryo state.

It is a well-established fact that this encrusted matter cannot be removed, or even loosened, by physic. But the inquiry is made, why the delay in making this discovery? The primary one is, that in conducting post-mortems the colon was overlooked, frequently removed if in the way, and cast aside. To prevent the highly offensive smell arising from the contents, also to prevent substance escaping, the ends were made secure. The question was not propounded whether or not it was natural in its fullness of fæcal matter and stink-bag propensity.

In the dissecting-room the colon, like the remainder of the intestinal canal, is taken out, and as quickly as possible removed from the room, in consequence of its tendency to prove offensive to the olfactory nerve. As a result this important organ of the human body is least familiarly known to the profession. Among the thousands of physicians an-

nually polished and thrown before the public by the mills of wisdom (?), it seems passing strange that there was not one among the number during the long years of search through the crypts of wisdom who possessed sufficient thought and originality to ask the question, is it one of Nature's laws that this scent-bag of filth should always be discovered so replete with decayed, putrid matter that we cannot allow it one moment in our presence? And is it not deleterious to our health to have this mass of filth our constant companion from day to day, till they lengthen into months and years, receiving its filth again and again into the circulation? Singular that young America, with all of his genius and originality was not confronted by this question. The secondary reason is one of selfish egotism and bigotry characteristic of the profession, for the science of medicine would be overtoppled and thoroughly revolutionized, and medication by way of the stomach, to a great extent, discontinued, were the knowledge as given above more extensively promulgated and known.

The stake received as its victim Michael Servetus, for his declaration that a crimson fluid, designated as blood, was conveyed from the heart through the arteries. One of his pamphlets was subsequently found by Harvey, to whom was accredited the discovery, but history only repeated itself, and to-day claims and embraces its own. Very naturally the question arises, why does the colon contain this unnatural accumulation? The ox and horse recognize no time, place nor occasion, but promptly obey the calls of Nature, and are blessed with an unclogged colon. So also is this the case with the natives of Africa. But civilized, enlightened life importunes for

a time and place. Business, etiquette, opportunity and myriads of excuses present themselves, and bar the way to Nature's calls till a more convenient time.

The fæcal discharge is of the consistency of paste when pressed through the ileocæcal valve into the colon, if natural, and should be but slightly more firm at its final evacuation, but if permitted to remain in the colon for a longer period than five hours, it settles into the folds of the colon, and a small percentage thereof will adhere thereto, while the residue becomes hard, and we designate it constipation, for its fluid particles have been absorbed back into the circulation. This small quantity being allowed to adhere and remain in the folds, occasions, first, irritation, then inflammation, and its dryness invites more accumulation. Now this process continued for an indefinite length of time, the colon receives a complete lining, parting with its nerve, elasticity and sensibility; then, by force of pressure, this fæcal matter passes the entire length of the colon, and, similar to a shoemaker's punch, the first piece is forced to relinquish its position by others forcing their way in. That which is evacuated to-day should have been ten days or two weeks previously.

Is it a marvel then to you, dear reader, that men die prematurely of old age, apoplexy, paralysis, dropsy, consumption, dyspepsia, so-called liver complaint, Bright's disease, kidney trouble, cholera, constipation or any of the multiplicity of diseases, in numerous instances caused by inflammation and distention of the colon?

What an egregiously absurd idea to purify the blood by pouring medicine down the throat, admitting, for the sake of argument, that such a thing was possible, which it is not, when nearly half of the abdomen is occupied by

a large intestine—as large in several places as the arm above the elbow—glutted with filth so nauseous and loathsome that carrion would approximate the fragrance of violets in comparison, this mass being absorbed by the lacteals, and conducted back into the circulation. Were a man to display an equal amount of ignorance in his business transactions, his friends would draw up a petition requesting the court to appoint a guardian, to whose surveillance would be subjected his pecuniary interests. Yet the cry of medical science soliciting legal protection against the encroachments of quackery! “Oh, consistency, thou art a jewel,” yet thou hast deserted man’s intelligence, and left him the dupe and victim of knaves and fools, and the more profoundly this line of thought is investigated and traced step by step by patient inquiry and observation, examined into with care and diligent accuracy, the more emphatically I am convinced that in the colon is contained the cause of almost all the physical infirmities of the present generation.

A vast number of people are not présentable either to themselves or their friends in consequence of the foul, disgusting odor of their bodies, and in polished society strong perfumes are called into requisition. Place your finger on a girl or woman who compresses her body with corsets or tight clothing, and you place it on one from whose body the putrid smell emanating is disgusting, for the very simple reason that the lacing comes in direct contact with that portion crossed by the transverse colon. Now if the sigmoid-flexure by folding upon itself becomes charged and clogged, how much more so will the transverse colon become loaded, when, by compression from each side, it is so unnaturally

folded upon itself as to have two extra elbows, as shown in many instances, instead of being straight, as is the case in a perfectly natural condition?

Humanitarians and physiologists have assigned numerous reasons why it will prove an injury for a woman to lace, but the one cited above will tip the balance over them all. Allow the clothing to be worn comfortably loose, heal and cleans the colon, and your presence will be rendered inviting to your friends, for Nature possesses but three other outlets—the pores or capillaries, the lungs in exhalation, and the kidneys. Other means of exit will be sought for the acid fermentations of the stomach and duodenum if the colon is clogged and its duty hindered, and these means will be evidenced by the foul odor of breath and body, and finally dyspepsia, and what is termed biliousness, torpid liver, &c., will ensue. Now that we have made manifest where the breeding, propagating soil for disease-bearing germs lies, you wish to be informed as to the manner in which they are absorbed and disseminated in, upon, or throughout certain organs of the body. Our bodies contain a system, an assemblage of canals scientifically arranged, designated as arteries and veins, having their source at the heart, which is the main pump that keeps the blood moving. These channels convey the blood presumed to be pure from the heart, carrying it to the different portions of the body, invading with its life-giving principles of sustenance heat and animation, while the veinous circulation carries to the heart and lungs the impure blood crippled with disease-breeding germs. From the food we eat and the water we drink we derive the supply of nutriment and life-producing principle. After it is discharged by the stomach and

duodenum, it is removed from the small intestines by a mass of absorbent glands called lacteals; by these it is taken into what is called the thoracic duct, and finally at the junction of the left jugular and subclavian veins, in conjunction with the vena cava supply from the liver, it is emptied into the circulation. In this consists the main sources of supply. Now the blood coursing through our bodies contains myriads of small vessels called corpuscles, and they give the blood a red color. In order that their use may be thoroughly comprehended, for the sake of convenience we will term them little war vessels, loaded with soldiers, and the soldiers have in their vessel a furnace, the fire in which is never extinguished. These vessels and their occupants are making unceasing voyages through our bodies, seeking germs of disease, which they capture, consign to the furnace and destroy. Now in connection with a colon, impaired by disease and overloading, suppose we take a violent cold, the two most important and necessary factors of outlet for filth and decayed matter are rendered incompetent to perform their duty of tearing down and building anew.

These small vessels have all the strain they can stand capturing disease-bearing germs that Nature finds herself inadequate to eject through the colon or pores of the skin, and a condition is brought about which we denominate fever, and the red corpuscle is now deprived of all save two dumping places, the lungs and kidneys.

Suppose that the bacillus of consumption is now being bred in the colon by the tubercular ulcer, and absorbed into the circulation. Under ordinary circumstances the crimson corpuscles would be competent to destroy them,

but now their energies are so overtaxed that the tubercular germ is deposited in the lung tissue alive, and in fit condition to begin its reign of death and destruction. A hacking cough commences, the person consults a physician, who, if he knows his business, diagnosis well-established tuberculosis. These germs may be taken directly into the lungs.

In the colon principally typhoid fever has its nursery, and obtains possession of the citadel of life in the same manner that any other germ or contagious disease does. What a terrific battle is being waged in us by our life preservers, arrayed against that dire foe the germ of consumption!

Co-existent with medical science was the system of colon-flushing, which seems to owe its origin to the ancient Egyptians, who put it to practical use, and who, it is apparent, obtained their knowledge from observations of a bird of the Egyptian species of snipe, called the Ibis. This bird gathered its food, which was of a very constipating nature, on the banks of the Nile, and the earliest naturalists observed that it sucked up water from the river, utilizing its long bill as a syringe for injecting the water into its anus, thereby affording itself relief.

It has been observed by Pliny that the first suggestion of the use of clysters to the ancient Egyptian physicians—who, not excepting the Chinese, were the first medical practitioners—was this custom of the Ibis. Christianus Laugins, the well-known writer, says of the Ibis, that when suffering from constipation, remotely removed from the river, and in consequence of weakness unable to fly, would be observed with dragging wings to crawl to the water's edge and there take its rectal treatment,

when in a short time, in the full vigor of restored strength, it would be seen flying away.

In "The Water Cure Manual," a work published in 1847, this system was substantially recommended by Dr. Jeol Shew, and to him is justly due the credit of being one of the original discoverers of this system, as the succeeding extracts will show: "Quart following quart of luke-warm injections may be given, until the alimentary canal is thoroughly cleansed." And again the author says: "It may be repeated again and again in as large a quantity as desired." And a little lower on the same page: "The thoroughly washing out, so to speak, of the lower bowels, by which also the peristaltic or downward action of the entire alimentary canal is promoted, and by the absorption or transudation of water, its contents are moistened or diluted, and the whole of the abdominal circulation completely suffused by that bland and most soothing of all fluids, pure water."

The following extract from an editorial in the *Chicago Daily Tribune* shows the value of the resurrected hygiene in cholera cases:

"The cable news from Hamburg states that great interest has been aroused by the introduction of a very simple but apparently effectual treatment for cholera. It is nothing more than copious enemas of warm salt water (injections into the bowels). It is claimed by some that the result of this treatment is truly marvelous, the death rate having been reduced fully fifty per cent. in a few days by this method of fighting the disease. In some cases a cure has been effected by it, though the application was delayed till the patients were in such a state of collapse that it was impossible to

discern the beating of the pulse, and this stage is usually regarded as beyond hope of recovery. It is claimed to cure almost every case when tried."

I do not advise you to try this system as a dubious experiment, in a cold, unbelieving manner. If you do so, it will not be allowed an impartial, fair trial. Satisfaction is not obtained by half-way measures. I want you to have faith in it, and embrace it in the full and complete assurance that if you obey and follow implicitly this treatment you will be cured.

All medical practitioners recognize the gigantic influence that the mind exerts over the physical matter of the body. Firmly impressed upon the friends and attendants is the necessity and importance of encouraging the patient by every means at their command, and the assurance to him that he will be restored to health. They wish to impress the patient with faith, and though a misguided faith when centered in drug medicine practice, the patient is not aware of the effects of the drug he is taking, still it has its influence.

There is a class of one-idea people over whom faith has such a mastery that they have adopted it, and employ it as their sole *materia medica*. This school has quite a large following, as well as extensive literature, periodicals, colleges, &c. Their system is faith cure, mind cure, &c., and they are termed Metaphysicians and Christian Scientists. In the treatment of certain diseases it is not to be disputed that they are successful to such an extent as to arouse the jealousy of the regular practitioners, who have manipulated and induced foolish legislation against them in different States. To assist Nature they employ the factor of the mind, as do

also the regular M. Ds., but are to be commended for the fact that, *unlike* the regulars, they do not hinder and retard Nature, nor disintegrate the vital forces by the use of deteriorating drugs; therefore, by far a larger proportion of their patients recover. In the event of the death of a patient while under their ministrations, as is sure to be sometimes the case, it matters not the character of treatment employed, more stir is created than there would be over one thousand who die under the care of so-called regular practitioners. Then a great stir is aroused by the M. Ds. and medical associations, whose cause is quickly espoused by the public press and heralded throughout the land, from the rock-bound coast of Maine to the Pacific slope. Instances have occurred when the practitioner narrowly escaped the clutches of the mob.

If their friends die in an ordinary way, people are content, and the great world moves on not heeding the loss. Prescriptions erroneously compounded have caused thousands of deaths, but if a physician or druggist was the responsible party the public hears it as a sounding brass and a tinkling cymbal.

I propose to employ all common sense means for the purpose of assisting Nature to restore the afflicted to health, and, therefore, am not insensible or oblivious to the efficacy of faith and will-power. The faith that we want, however, is of that quality that requires reason, knowledge and common sense as a foundation, rather than one based on superstition for traditional methods of which the patient is ignorant. We want faith in the recuperative powers of Nature, and Nature's laws, rather than a blind faith in some M. D.

With this book as a guide, a fountain syringe and a

good bath cabinet, you can ignore the M. Ds., and more successfully treat yourself and family in all ordinary chronic diseases than can any physician who calls into requisition the drug system. The operation of flushing the colon is widely different from that of an ordinary enema or injection. In the latter a pint or so of water is employed, thrown into the lower part of the colon and expelled immediately, carrying with it whatever there may be of fæcal matter at the outlet. The object to be desired in flushing is to cleanse the entire organ, and this is done by allowing the heated liquid to pass through its entire length, to be retained for some little time, then discharged. The best way to accomplish this is to procure a fountain syringe, hang it up in a convenient place in the bath-room or your bed-chamber; but when traveling an Omega continuous-flow syringe will be found more efficient. Recline on the right side, placing the left arm behind the back, and the right breast low down on the couch. First allow the air in the syringe-tube to escape, then insert the nozzle into the rectum. To lubricate the injector will assist it to more readily enter. Allow the flow of the water to take place gradually. A strong desire to expel the water will be experienced when first commencing this treatment. Control this feeling, and the inclination will depart; however, if it should prove continuous, withdraw to the privy or water-closet, discharge it accompanied by what fæcal matter may exist at the outlet, then continue the flushing as before.

The first trial will generally demand no more than a quart of water, or, if very delicate, a pint will suffice. Gradually increase the quantity from time to time until three quarts can be readily and conveniently taken,

which will be due to the size and capacity of the patient. Lie as quietly as possible after the correct amount has been introduced, rubbing and kneading the abdomen gently. Discharge the water, together with the contents of the colon, after a few moments' recuperation. If the discharge is not easily accomplished, it may be accelerated and hastened by kneading the abdomen, and employing pressure along the line of the colon from the right to the left side.

The greatest benefit accruing from this system of flushing is said by those who employ it to be just before retiring, but I have found it equally efficacious if practiced in the morning—in fact I generally prefer taking it at that time. The patient will consult his own convenience as to time.

Water as hot as the hand can conveniently bear it is usually the direction. I have found it equally effective when cooler, and prefer it. Water from 92 to 110 degrees is that which stubborn or constitutional constipation generally requires, accompanied at times with persistence in a marked degree.

It matters not how copious or limited the evacuation at the time of flushing, if you experience no inclination to relieve the bowels the day following when your regular time has been reached, entertain no solicitude, for to be pure internally as well as externally you should avail yourself of the warm bath every third night if well; if ill, more frequently; and in that length of time, with consistent diet, Nature will not overaccumulate.

The overpunctilious may rail out at the degrading result of these flushings, but I appeal to your reason and innate refinement, which is superior, to withdraw with your syringe to the closet, if you inhabit a modern

house, and feel, as well as appear, sweet, rosy and clean, or make patent the fact of internal neglect? I assume the evidence is plainly discernible in the shape of blotches and pimples on the face; thick, muddy complexion; lustreless eyes and languorous step; a vile, hot breath; gaseous eructations of bowels, and stomach gorged with fermenting food and loathsome excrescence.

Every day two pounds or more of waste is thrown off by the lungs, and to every man and woman the idea of converting this untiring organ into a sewer-escape is revolting.

The flushing treatment demands supremacy as a branch of physical culture. If the vital organs are allowed pure blood, fresh air, discreet exercise and temperate diet, it is but a rational conclusion that there will exist no obstacle to a perfect and symmetrical development of the human body. I am bold in making the assertion that the complexion can be made to attain a high and exalted degree of peach-bloom beauty by the continued use of the enema, that the hair will be rendered soft and luxurious, the eyes sparkling with brilliancy, and light and elastic the footstep. The development of limbs and bust will become more perfect, and in matrons, where the neglect has not been too prolonged, a decided change for the better will be the result. As a flesh and brawn promoter, young girls and boys can resort to nothing that will yield such satisfactory benefits. This treatment constantly pursued by the ladies can, in my opinion, defy the changes of life and jest at the mention of wrinkles or other premature decay of beauty. The drains upon the system of the mature woman can to a great degree be modified, and Time's iron footsteps, so generally conceded to be lasting, in a material measure arrested.

It is not merely woman's prerogative, but her duty to make herself as beautiful as Fate will allow, and if the enema plays no more exalted part than to cater to this vanity, the knowledge of its use would prove of priceless value to those who possess it. Under all conditions it will prove a soother. It will successfully vanquish and banish drugs from the healing art, and all Nature's laws being followed you need never be ill.

That insidious foe to human happiness, dyspepsia, beats a retreat before the rush of genial warm water, almost instant relief is awarded to female complaints, and finally permanently cured if the vaginal injection is employed in connection with the flushing of the colon. That fiend, that raven croaker, sleeplessness, never perches upon the pillow of the faithful demonstrator of this, Nature's own remedy, and in happy harmony and unison Nature responds to this heaven-appointed preventive of the diseases of civilization. But more marvelous than all the other wonders made apparent by this treatment is the mild but positive effect that is brought to bear in the prevention and cure of the diseases of children.

I am fearless in my declaration that with this treatment alone, I could, in the third generation, produce such a marked improvement in the human family that the theory of evolution would receive a new impetus based upon practical demonstration. I regard it as the sacred duty of every mother, now that this originally inspired remedy has been resurrected from the mouldy crypts of the past by the water cure physicians, to direct and assist by its aid her offspring to their full and proper development. A half-pint enema of quite warm water, given by the aid of a small size rectal-pipe,

will as safely relieve the little babe a few hours old as the sufferer of mature years.

Idocy has been developed in many children who had a fortuitous birth and promising infancy. We were informed "stomach troubles" were the premonitory symptoms. The true diagnosis would have been impacted colon, with its blood polluting, brain softening tendency. The pitiable, helpless victim of an ignorant, licentious, gluttonous age succumbs and surrenders to the pressure of heredity, and utters its protest of criminal neglect against an agonized, uncultured mother. By a prudent and careful mother the remedy will be accommodated to every requirement, and with a baby rectal-tube and all-healing water, in smaller quantity and lower temperature, give the enema in connection with the bath, which should be only half and *part* of the general cleansing of the body in modern social ethics. By this method a stream of clean, fresh life is introduced and infused into her offspring, thus subjugating and holding in check the very germs of disease.

When the exterior body is rendered unclean by dust and grime, we employ water as the cleansing process, for the reason that its efficiency possesses no equal. Then why should not the same agent be used to cleanse the interior? That this foul condition ought not to be allowed we readily admit, but in the majority of cases it is true, and it is this great number that receives the admonition to repent. The two extremes, the stomach and colon, are accessible, and can be cleansed in this manner; the middle organs are beyond the limit, but by preventing the ferment remaining in the stomach and colon, the smaller intestines will be looked after and protected by the bile. The bile is the embassy dele-

gated to perform that duty, and if not previously imposed upon by material which has already attained a degree of fermentation in the stomach, it will insure nothing of a like character in this intestine. The stomach can be cleansed and made ready to perform its natural functions by three processes, one of which we will denominate as ordinary, and the other two as extraordinary. Every one can employ the first method without hesitation, and will find that material benefit will result therefrom. This is a well authenticated fact, and is regularly practiced by thousands.

Immediately upon rising in the morning, or half an hour or so previous to each meal, drink from half to a pint of water, as hot as can be comfortably swallowed—"as hot as tea," is the usual prescription—and this it will be found will not produce nausea or vomiting. Sipping hot water will in most instances check persistent cases of vomiting. The water, if disagreeable, will become more palatable by the addition of a small amount of lemon juice. After practicing this for a few mornings, an agreeable effect will be produced by the water. The mission of hot water upon the stomach is to loosen and expel the clinging mucous. In twenty or thirty minutes this agent will have made its escape, bearing with it the mucous, leaving the stomach in a clean, pure condition, ready to take up its work of digesting the food, and not only cleanses but acts as a stimulant, increasing the vital activity of the organ.

When an emetic is deemed expedient, the second method consists in drinking tepid water until nausea is produced, when the stomach will eject it, accompanied by its contents. Under all circumstances this is the most satisfactory emetic that can be resorted to. By it

the stomach is thoroughly cleansed, and no debilitating effect ensues, as is invariably the case when a drug emetic is employed. The water should be taken at its greatest degree of nausea, and continue drinking until you experience an inclination to vomit, even though a quantity equal to two quarts is taken. In ordinary cases, however, a pint will be found a sufficiency. If the stomach does not readily eject the contents, its action may be accelerated by introducing the forefinger down the throat to the termination of the glottis. A tickling, irritating sensation will in this way be developed, causing a retching which will induce vomiting.

The third method is more difficult, and usually the services of a physician are called into requisition, although a person of ordinary ability will be equal to the emergency. This consists of the passing of a rubber tube or catheter down the throat into the stomach. The upper end of this tube projects into a funnel, into which one pint of warm salt water is poured, then by elevating it higher than the head of the patient, the water is immediately conveyed to the stomach; then by lowering the funnel on the principle of the siphon, the water is all thrown back again, bringing with it the slimy catarrhal and acid substances which have clogged and checked the action of the stomach. The stomach will become clean and pure by several repetitions of this process. This method is not so difficult as might be presumed, but under the greater majority of ordinary circumstances, the employment of the first and second methods will be found all that will be necessary.

The question against flushing may be propounded, "Is it not unnatural?" I reply it is, so is a constipated colon; but when Nature, by lack of vitality, is unable

to perform its task, our brains must come to its rescue, and devise means to aid it in doing the work. We are taught by experience and our reasoning faculty, that flushing is the surest, safest and most efficient method of perfecting this end, and we may also add the most natural means, as this process employs one of Nature's most simple and capable agencies.

Disease is unnatural, and until the system can be superinduced to take up its normal condition, we are taught by experience that these methods are not only beneficial but necessary. Drugs poured down the throat are certainly injurious.

Does flushing the colon produce a debilitating effect? The reply of those who have practiced it for months, and even where months have lengthened into years, is that it brings about a steady gain in strength and flesh. Another query arises: Will not the intestines become weakened and impaired, and rely entirely upon these unnatural means? I reply, that will be controlled by circumstances; the intestines will not become weakened by flushing the colon, for where health is regained and the intestines resume their vitality and strength this procedure will be found unnecessary. In this respect it may be tested by discontinuing for a week at intervals its use, when the result will be a regular movement as soon as sufficient fæcal matter has been amassed to require it. Upon the demands and condition of the person using it will be dependent the necessity of continuing this treatment. If the same pernicious habits of life which produce it are persisted in, a constant resort to the method will be requisite; or if the patient has suffered from constipation a great length of time, and the strength of the intestines have become

impaired by the too frequent use of cathartics, it will consume considerable time even with reformed habits for the bowels to again acquire enough strength to act normally.

With many persons of sedentary habits, until a change to more active employment can be made a continuous use of this remedy will be found needful and profitable. With the aged also it will prove advantageous to use it continually through life, and is a simple, harmless process easily accomplished, and when once resorted to for a period, will be regarded as nothing more than partaking of a meal, and certainly more to be commended than carrying around from day to day a load of loathsome sewerage or swallowing drugs.

The fact that after flushing one has no natural movement for perhaps two days, might be produced as an argument that the habit is constipating. To this I reply that there is nothing to discharge. A period of from twenty to thirty hours will be required before more fæces will reach the point of discharge. Flushing should be resorted to at first every day, then after the lapse of a week every other day, till normal action is restored. Some cases require a longer time, others demand a shorter, and if a deep-seated chronic case can be eradicated in a year's time it is well.

It is necessary that perseverance and strict attention should be paid to details. Proceed with the same systematic regularity, thoroughness and determination to win that the man of success accords his business, and the surrender of the invidious, malignant foe of your well-being will surely follow.

CHAPTER XVII.

FACTS IN RELATION TO THE RESURRECTED HYGIENE.

INFORMATION to be of value should contain record of knowledge which is valuable to mankind individually as well as collectively. This chapter contains record of such knowledge, and so far as I am aware, this is the first time it has been published in the present form. The idea has been recently promulgated by Dr. Hall and others, but I claim to have worked out and demonstrated its application in widely varied manifestations of disease.

In these days of excessive drug treatment much harm is unwittingly done, and it is my earnest desire and purpose to show the reader a way of escape from a choice of evils by revealing that way which is unadulterated good.

Health is dependent on the integrity of the functions of the vital system—the lungs to receive oxygen, the heart to propel the blood; the juices of the stomach, the intestines, the pancreas and the biliary secretion to digest food; the absorbent system to assimilate the nutriment digested; the excretory functions of the lungs, the skin, the kidneys and the bowels to carry off the effete materials which, if retained, poison the individual.

All disease, except surgical diseases, is caused and continued by faulty digestion and assimilation. This is as self-evident as any axiom in Euclid, but, as it is necessary that the reader should have a clear idea of this

truth in order to understand intelligently the rationale of the treatment herein advocated, I shall describe concisely the anatomy of the vital system and the physiology of digestion, assimilation and nutrition.

Reference to plates herein will enable the reader to understand the relative positions of the vital organs. The trunk of the body is divided into two main portions—the thorax and the abdomen, separated from each other by a muscular partition, which forms the floor of the thorax and the roof of the abdomen. This partition is called the diaphragm, it is attached to the ribs and spinal column. In the thorax are the heart, lungs, portions of the esophagus and thoracic duct, &c. The abdomen contains the stomach, liver, pancreas, spleen, intestines, kidneys, a portion of the thoracic duct, &c. ; it also contains the chief portion of the absorbent system.

The reader will notice that the heart is just above the stomach, separated from it by the diaphragm, and the transverse colon of the large intestine is just under the stomach. The position of the small and large intestines at the ileocæcal valve, and the form of the valve is of prime importance. The liver, stomach, intestines, &c., are kept in position by ligaments attached to the walls of the abdomen.

This will suffice for the anatomy.

On taking food into the mouth it is ground by the teeth, and mixed with the saliva, which lubricates both the food and the gullet, thus assisting in the act of swallowing. On reaching the stomach the food excites the secretion of gastric juice, which dissolves the albuminous portion, and after about an hour the mass is reduced to the consistence of pulp, which passes into the duodenum, the first portion of the small intestine ; here the fatty

portion is emulsified by the pancreatic and biliary secretions, and the whole mass, now called chyle, is further digested to the consistency of cream, and prepared for absorption, which is accomplished by the lacteals and the blood vessels. The lacteals absorb the fatty matter, and the blood vessels the liquid portion. The portion of chyle which is rejected by the lacteals as not being fit for nourishment, is passed along the course of the small intestines to the ileocæcal valve; by this time the chyle has acquired a distinctly fæcal odor; it now passes through the ileocæcal opening into the larger intestine, which distends by the accumulation of chyle, and closes the valve, thus preventing the entrance of more chyle till the ascending colon is empty, and during its progress to the rectum increases in solidity by the absorption of its liquid portion, and is at last expelled at defecation. The portion of the chyle which is absorbed in the small intestine is conveyed to the thoracic duct, by means of the system of absorbents connecting the intestines to the thoracic duct, then along the latter to the left subclavian vein, where it is ushered into the circulation and partakes of the character of the blood. Absorption from the large intestine is accomplished in a similar manner, consequently, materials absorbed from the large intestine enter into the circulation and become constituents of the body. The lacteals are only in the small intestines; they alone absorb the nutritive portions of the chyle, so that when the chyle arrives at the ileocæcal valve it is deprived of its nutritive portion. The fæcal odor is an evidence of this, and all the absorption from this fæcal material is detrimental to health—for as all material absorbed enters into the circulation of the blood, and every particle of the body is nourished by suitable

material contained in and secreted from the blood, it follows that the more material incompatible with the health there is in the blood the less nourishment the body receives, and the less material incompatible with the health there is in the blood the better nourished the body will be.

Constipation is a chief cause of this assimilation of material incompatible with the health; it is also an effect of the assimilation of such material. It is a cause because of the retention and consequently the forced absorption of the fæcal matter, and this forced absorption manifests its effects in disease of all parts of the body, because of the deposit of material incompatible with the health, and the different organ or organs in which disease is manifested is that organ or those organs which have absorbed and retained material incompatible with health. In one person disease is manifested in the lungs, in another in the liver, in another in the heart, in another in the stomach, in another in the intestines, in another in the kidneys, in another in the skin, in another in the spine, in another in the eyes, or brain, or muscles. The origin is the same, namely, the absorption and assimilation of material incompatible with health, and this absorption of such material is chiefly effected in the large intestines.

According to the highest authorities the gases in the alimentary canal, beginning at the stomach, are as below:

	VOLUMES.	
	OXYGEN	CARBONIC ACID
Stomach.....	11	14
Small Intestine.....		30
Colon.....		57
Expelled per anus.....		41

From the foregoing table we perceive that the oxygen is appropriated in the stomach, and that the carbonic acid increases till it reaches the colon, evidently by the collection and excretion of material incompatible with health during the progress of the chyle through the small intestine to the colon, at which place it attains its maximum volume, then through absorption in the colon sixteen (16) volumes, or twenty-eight (28) per cent. of this death-dealing gas is ushered into the circulation and the tissues, to manifest itself at a favorable time in disease more or less virulent.

Carbonic acid is the chief substance to be eliminated from the body, and the quicker it is eliminated the better for the health of the body; it is exhaled in large quantities from the lungs, but that the lungs are not able to expel it speedily enough is evident by the prevalence of lung disease. And if its too slow elimination should not cause lung disease, it causes liver disease, skin disease, stomach, kidney or intestinal disease.

A slight idea of the virulence of carbonic acid is shown by the fact that if respiration be entirely arrested for a few minutes death results.

A large portion of carbonic acid enters the circulation by enforced absorption in the large intestine because of constipation, in fact constipation, acute or chronic, is an accompaniment of every form of disease; even diarrhea and dysentery are caused and continued by a constipated condition of one part of the intestines. The proof of this is, when the regular action of the whole alimentary tract is restored the diarrhea ceases.

This truth of the effect of absorption of material incompatible with health is evidenced in the vegetable kingdom as well as in the animal kingdom. In the

neighborhood of large chemical works all vegetable life, including the hardiest trees, perish quickly, because they are forced to inhale gases which are incompatible with their welfare, and this in spite of the soil being eminently fitted for the nourishment of the trees. So in man: he may partake of food containing elements highly nutritious, but these are rendered inert by the absorption and assimilation of incompatible material before mentioned.

But vegetable life surrounded by material compatible with its welfare, flourishes and ministers to the welfare of animal life, thus exemplifying the usefulness of a healthy person. Both vegetables and animals have a limited power of selection from among the materials present for their appropriation; animals appropriate oxygen and exhale carbonic acid, and vegetables appropriate carbon and exhale oxygen, except when they are so circumstanced that such necessary materials to health and life are either unobtainable entirely, or not obtainable in sufficient quantity, and they are compelled to appropriate and absorb such material as is present, however injurious it may be. This is with reference to respiration, but it is equally true and superlatively important applied to the alimentary canal. Man has a limited range of selection as regards the food he eats, and the liquid he drinks, and during the progress of food from the mouth to the anus the organism has a limited range of selection from the digested product to appropriate to the needs of the body, but when the function of digestion in any part of the alimentary canal is perverted, material incompatible with health is forced into the absorbent system, and into the blood, thus continuing the cause and effect of disease.

The chief place in the alimentary canal where functional perversion is most frequent is the large intestine.

The length of the small intestine is about twenty feet, and the internal surface is increased two fold by corrugated-like formations of the mucous membrane, called "*valvulæ conniventes*."

The length of the large intestine is about five feet, the internal surface is smooth, there are numerous folds corresponding to the transverse fibres, which give it a sacculated form.

An ordinary meal passes through the small intestine in about twelve hours, and through the large intestine in from twenty-four to thirty-six hours, so that it is clear that there is a continual tendency to retention of *fæces* in the large intestine; this actually occurs and causes retention of the contents of the small intestine, and enforces absorption of material incompatible with health, both from the small and large intestine. It also deranges intestinal digestion and stomach digestion, both by the mechanical obstruction and the vitiated chemical juices which contain a putrefactive ferment, and as this ferment renders corrupt everything in contact with it, the danger to life constantly increases so long as it is allowed to reproduce. This condition is frequently relieved by an involuntary diarrhea, which is a defence to the living body in a measure, and in some cases the diarrhea continues an indefinite time, because of the constant reproduction of the putrefactive ferment, so that diarrhea is not an evidence of non-absorption of material incompatible with health, but the reverse. Nature has so constructed our bodies that they are self-protective in a great measure, and we escape many severe illnesses in spite of our carelessness and igno-

rance. But our bodies will not bear everything, and the time comes when neither carelessness nor ignorance is excused, and suffering tells of the battle between death and life.

The absorbents of the small intestine are quite capable of selecting material compatible with health, and of rejecting material incompatible with health from the product of digestion, if they be not hindered by faulty digestion in the stomach and small intestine, and faulty absorption in the large intestine. Faulty digestion both in the stomach and small intestine is very frequently caused by absorption of material incompatible with health in the large intestine, as has been shown in the foregoing pages. A person may have regular daily evacuations from the bowels, and free absorption of material incompatible with health going on constantly, because there may be a lodgment of fæcal matter in one or more portions of the large intestine; or it may be lined with fæcal accumulations and excretions from the mucous surface which persist in remaining; or there may be one or more ulcers or low grade of plastic deposit in the rectum, or some other part of the large intestine, both of which not only perpetuate themselves, but also cause other ailments, such as fistula, piles, inflammation of the kidneys, irritation of the uræthra, skin eruptions, dyspepsia, nervous irritation and so on *ad libitum*. This is no imagination, but sad truth, as many know to their bitter sorrow.

Man in his natural condition, that is, as he was in the patriarchal period, ate the produce of the earth prepared in a very simple fashion. He ground grain coarsely and baked it without leaven; he ate luscious fruit plucked from heavy laden boughs; he drank water from unpol-

luted streams; he wore clothes which protected him from the inclemencies of the weather without interfering with his physical shape or the movements of his limbs; he breathed air which contained a proper proportion of oxygen; he exercised his body by plowing, sowing, reaping and grinding grain; he was not worried by care, and he lived one hundred years or more. But modern customs have changed all this. They have deteriorated man and made him a puny creature in comparison with his former self. The fine flour, the hasty eating, the carnivorous diet, the feverish hurry for wealth, has all told upon his power of nutrition, till now malnutrition and inactivity of the colon is the great cause of disease among mankind. There have been men during the ages who have maintained their health and vigor to be above one hundred years by a proper mode of diet and behavior, but comparatively few of these were engaged in commercial and political strife; they lived away from the filth and rush of city life. The Brahmins, Arabs and others are examples. The Aborigines of New Zealand subsisted on succulent roots and wild fruit, and they lived more than a hundred years, except when they were killed by accident or design; some are now centenarians, but the race, as a whole, is rapidly becoming extinct, because of the introduction of habits of intemperance in eating and drinking introduced among them by *civilized* (?) Europeans. The lower animals in their natural condition, that is, away from the interference of modern civilization, choose their diet with unerring instinct, and are free from disease in consequence. Man, in his natural condition, did choose his diet with unerring instinct, but as he is not now in his natural condition, his senses have no longer their original acuteness, his

mode of living has become a matter of education, and he is constantly deteriorating in length of life. I shall not attempt to restore him to his original condition of blessing, for that is impossible, but I can do the next best thing, namely, show him a way of vastly improving his bodily and mental vigor, thus prolonging life to its extreme limit.

With this purpose I now explain a mode of treatment which will not only prevent sickness if used regularly, but will modify acute attacks if used in time, and will cure chronic diseases of all forms. The reader undoubtedly already infers that this treatment is directed chiefly to the alimentary canal, and especially to that portion of it called the large intestine. It is. I claim that it is superior to all other modes of treatment, and will show why it is curative. Before doing so I will refer to medicine taken for the purpose of preventing disease and restoring health, especially with regard to the use of cathartics.

After the reception of a cathartic drug into the stomach, it is partially digested and passes through the pylorus into the small intestine, mixes intimately with the chyle, which it poisons by setting up putrefactive fermentation; the lacteals reject the whole mass thus vitiated, and it is hurried along the course of the small intestine to the large intestine, where the same disorganizing action being continued causes the speedy expulsion of the fæces and partly digested and putrified chyle; while the small intestine is being unloaded, a portion of the noxious material which was forced into the lacteals is returned to the intestine by the disturbed action thus set up, and makes a rapid exit from the body by the extreme peristaltic action of the intestines. The person feels relieved,

and flatters himself, or herself, that he or she is much better, the only bad after-effect noticed being probably a slight feeling of weakness. This weakness is caused by the suspension of assimilation and nutrition during the operation of the cathartic. The muscular coats of the intestines are rendered permanently weak, the power of contraction, on which the vermicular movements of the intestines depend, decreases with each repetition of drug action, till all pleasure of living is lost. The same present effect results from the use of a cathartic as would result from abstinence from food; but the after-effect is much worse, because the digestive organs have been forced to expend energy without the compensation of nourishment, whereas by abstinence from food the digestive tract is not imposed upon, but rested and prepared for the reception of food.

Abstinence from food is unnatural (except in cases of high fever), as is known by the call of the nerves for nutriment; it is also incompatible with life, because life depends upon judicious stimulation, and if the stimulus of the food should be withheld, nutrition would fail and life cease. As has just been stated this does not apply to high fever, for the stimulus of the fever is already too great, so it would not be judicious to increase that stimulation, but the ordinary style of medical treatment for a fever patient is to prescribe a drug which stimulates to the point of arresting the rapid destruction of which the high fever is an index, and to supply a substitute for the fever to expend its fury upon. For this purpose alcohol, quinine, antipyrin, antifebrin, &c., are administered, and the proof of their efficacy in arresting rapid molecular change is seen in the depression of temperature so rapid as to arrest the vitality of the patient. The

drug is prescribed on the basis, that the cause of the fever must be destroyed in the patient, and in doing this the patient is destroyed also. This basis is purely fallacious. The true mode is to eliminate material incompatible with health from the body in a physiological manner, that is, in a manner approximating as nearly as possible the functions of the organs in health. The mode of treatment herein advocated does this.

Drugs do not eliminate material incompatible with health, but they cause chemical change and a feeling of improvement follows, while the cause of disease remains to manifest itself at a favorable opportunity. I mention a few examples: *Cantliarides* contain free uric acid, a substance which enters into the formation of stone in the bladder. It causes stoppage of urine, bloody urine, &c., whether it be taken as medicine or applied to the skin. *Digitalis* constricts the muscles of the heart, thus arresting its action. *Ergot* contracts the calibre of the capillaries, thus causing gangrene. Iron causes jaundice by coating the stomach and duodenum with metal, thereby closing the bile duct. Mercury impoverishes the blood by displacing nutrient material, thus allowing breaking down of tissue, as manifested by swollen gums, loosening of the teeth, ulcers, decay of bone, and a special form of paralysis. Opium and morphine arrest excretion by deadening the sensory and motor nerves; this is perceived in the consequent indigestion, constipation and decrease of respiratory capacity. Arsenic changes healthy nutrition into diseased nutrition, as seen in cancer and some forms of persistent skin disease. Quinine dries the healthy juices which bathe nerve tissue, thus causing deafness, noises in the ears and even blindness; it has caused fatal inflammation.

Gentian causes an excess of gastric juice into the stomach, thus impoverishing its quality and causing catarrh of the stomach. Aloes by excessively stimulating the portal circulation relaxes the hemorrhoidal veins, thus causing piles. And so we could go on telling of the mischief done by drugs, but enough has already been said to illustrate their deadly action, which can be verified by many readers. An eminent professor in Chicago has said truly to his students: "No person was ever known to be afflicted with chronic disease unless he or she has taken drugs."

The prime object of all medical treatment should be to prevent sickness by preventing the absorption of material incompatible with health, and to restore and maintain health by arresting the absorption of such material. As has been stated in a former part of this treatise, the stomach and small intestines are fully competent to secrete healthy juices, which are in turn able to digest the food in an efficient manner, and the lacteals can absorb from the digested product material compatible with health, and can reject material incompatible with health, if the functions of the large intestine be properly performed; these functions are the excretion of material incompatible with health, its speedy expulsion from the body, and the non-absorption of material incompatible with health. As the individuals who are in this blessed condition are as rare as snow in the tropics, or as grass on the desert, or as sea-water without salt, or as clouds without water, it becomes necessary in order to prolong the lives and preserve the usefulness of our champions of morality, of those who minister to our welfare and comfort, of our beloved sons and daughters, and to preserve and restore and maintain the enjoyment

of living, we say, it becomes necessary to reveal the mode by which this is accomplished.

The capacity of the large intestine in man varies from three to five quarts, the average being four quarts. In order to effect our purpose, namely, the maintenance or restoration of the healthy functions of the large intestine, it should be filled with water of the temperature of 100 degrees to 105 degrees Fahrenheit. The injection should be administered from a fountain-syringe having a container of the capacity of four or five quarts, elevated seven feet or more above the level of the patient, who must lie on the right side of the body, and proceed as directed in the previous chapter.

The water being allowed to flow gently will cause no sensation at its point of injection other than that of comfortable warmth; when from a pint to a quart is received, it should be evacuated. This will bring away some fæces, and prepare the lower bowel for being filled with water. After a rest of one or two minutes to allow the peristaltic action of the large intestine to cease, the patient should assume the same position as at the preliminary injection, and allow as much water to flow into the bowel as can be contained, which ought to be not less than three pints at the first trial; retain it for a few seconds or a minute if possible and evacuate. Increase gradually the quantity at each consecutive injection till not less than three and not more than five quarts can be contained. It will occupy from five to ten minutes to inject a gallon, and about the same length of time to expel it.

If used for the purpose of preventing disease, from two to three times a week is sufficient, followed occasionally by an injection of from a pint to a quart of

water, which must be retained for absorption after the bowel has been cleansed by the maximum quantity. When taking this supplementary injection, lie on the left side with the hips raised. Difficulty of retention is overcome by lying still and pressing the fleshy portions of the hips together, or pressing a napkin against the anus till the involuntary action ceases, which will be in a few minutes.

In acute febrile and inflammatory attacks of disease, the injection may be administered from one to four times every twenty-four hours, according to the height and persistency of the fever; and if it be not evacuated no alarm need be felt, for it will be absorbed and reduce the temperature with perfect safety to the patient. This is applicable to all febrile conditions, no matter whether the chief seat of the fever be in the head, thorax, abdomen or extremities. In these cases the temperature of the water injected may be reduced to 98 degrees Fahrenheit. It may be tested by an ordinary bulb thermometer. The patient should be allowed to drink as much boiled water, either warm or cooled, as he or she desires; the skin should also be bathed frequently with tepid water.

In chronic disease, no matter what name it is called, the injection ought to be administered once every twenty-four hours, till there is an improvement in the symptoms, when it can be used once every forty-eight or seventy-two hours. The supplementary injection mentioned in the paragraph on the prevention of disease may be used occasionally with benefit.

At the beginning of the administration of the injection, the sensation is of comfortable warmth in the rectum, after several minutes a sensation of fullness in the rectum, accompanied by a desire to evacuate the contents

of the bowel is experienced ; this must be controlled by voluntary effort, to assist which the flow may be moderated; then follows a feeling of fullness increasing gently in the upper part of the abdomen ; slight rumbling may be felt and heard ; warmth and perspiration on the skin, the feeling of fullness increases, accompanied by slight pain ; the pressure in the rectum becomes somewhat heavy, and the liquid demands evacuation. The pain may be relieved by rubbing the abdomen with the hand, and flexing the thighs on abdomen. The patient should have his attention drawn away from the administration of the injection as much as possible, as an aid to his receiving the maximum quantity, for the aim is to fill the large intestine so as to evacuate its contents entirely. The liquid injected cannot pass into the small intestine, because as the large intestine fills up the ileocæcal valve closes and prevents the passage of material solid or liquid. No straining is required to empty the now distended intestine, for the contents are chiefly fluid, and the entire collection of fæces is washed away by the emollient action of the water on the fæces, and the energetic peristaltic action of the large intestine. If any assistance be required to help the evacuation thoroughly, it is effectually given by kneading the abdomen, either by the patient himself or by an assistant.

The refreshing sense of relief after such an expulsion is recompense enough for the trouble, but a further recompense is received in sound sleep, increased breathing capacity and general normal activity. The digestive functions in the stomach and in the small intestines are not deranged by this means, as they are by cathartics, but renewed and strengthened because of the expulsion of material incompatible with health only, and the non-

interference with the action of the digestive juices on material compatible with health.

The effect of this treatment on the large intestine is to cleanse it of all accumulations of fæcal material without regard to the length of time it may have been there, because it makes soluble and easy of expulsion all such material; in this alone it is vastly superior to the employment of cathartics, for cathartic drugs cannot cleanse the lining of the large intestine, but leave material incompatible with health to be absorbed constantly. This treatment also stimulates normal excretion from the glands of the large intestine, and by its speedy evacuation prevents the reabsorption of material incompatible with health thus excreted. It calms irritation both by the evacuation of the fæcal material and by the soothing effect of the moist heat applied direct to the mucous surface.

The small intestine being encompassed by the large intestine, partakes of the gentle stimulus applied, normal secretion of the digestive juices is encouraged, and intestinal digestion maintained in the healthy, and improved and restored in the sick.

The stomach lies almost in contact with the transverse colon, and because of its position is favorably acted upon by the moist heat which causes a normal flow of gastric juice and also subdues any inflammatory condition of that organ.

The function of the liver is to assist in the separation from the blood of material incompatible with health; this being so, it is clear that the treatment I advocate lessens its load and relieves all the symptoms accompanying liver disease.

The kidneys are situate just behind the ascending and

descending colon, so that it is easy to perceive that they will be benefited in the same way as the stomach.

The lungs are the chief receivers of oxygen and expellers of carbonic acid, and as this treatment expels much of this deadly product, the lungs are saved much injurious labor, consequently they are considerably benefited. The whole of the contents of the thorax are relieved of pressure by the evacuation of the contents of the large intestine, the capacity of respiration is increased, and the oxygenation of the blood is thoroughly accomplished.

It is necessary to health that the functions of the skin be properly performed. This treatment, coupled with the hot air bath, promotes the functions of the skin in harmony with the functions of every other organ of the body, and insures true economy in the proper excretion of material incompatible with health.

The treatment removes without violence or the shadow of harm material incompatible with health from the blood, and as every tissue in the body is nourished by the blood, and the functions of every organ approach the normal condition in the ratio of the fitness of the blood to nourish, and as the complete fitness of the blood to nourish is when it is constantly divested of material incompatible with health at a proper ratio, it follows that blood in this condition promotes normal functional activity, and disease cannot possess a person so conditioned. This being so, the circulation in the capillaries is made active, which is known by the sensation of comfortable warmth in the extremities and on the skin.

Rush of blood to the head, congestive or nervous or any form of headache, is relieved and permanently cured by this treatment; also dizziness and sense of

heaviness on awakening and arising mornings. Sight is also preserved and improved; sore eyes cured; discharges from the ears healed; chronic inflammations of all kinds terminated; old ulcers are greatly helped toward a favorable ending, and skin disease of all forms eradicated from the system by this mild, pleasant and effective method.

There are forms of disease, such as stricture of the rectum, stricture of the urethra and some forms of nerve trouble, which need auxiliary aid, but as it would swell this treatise to too great a bulk, and as it is impossible to give general instructions to fit every special case, it is wiser for a person so afflicted to have a special consultation about these matters in order to intelligently apply suitable treatment.

Diseases peculiar to women are gently, painlessly and successfully treated by Natural methods, varied according to individual requirements. And for diseases of childhood, it is not excelled by any other method nor equaled by many of the methods in vogue. To administer to a child, hold the child in the lap on its right side with the thighs flexed on the abdomen, and proceed as directed for adults. A child twelve months old ought to be able to receive a pint; a child four years old ought to be able to receive one quart; a child seven years old ought to be able to receive three pints; from seven years upward increase from one-quarter to one-half pint for each year till the age of fifteen to eighteen years, at which age the capacity should be that of the adult.

While I recommend a judicious selection of food and its proper preparation, care of the skin by bathing, suitable clothing and sufficient employment of the

physical and mental faculties as being necessary accessories for the maintenance and restoration of health; I cannot ignore the fact that this treatment has effected cures which have been unimproved by dietetic reform and other hygienic surroundings; and it has improved beyond expectation and cured many who were declared incurable after a long period of dosing with drugs.

Old age is rendered uncomfortable by the drying of the juices of the body. This tendency to drying is in every person, and increases as years are added to one's lifetime. The rise in the temperature in elderly persons is an evidence of this, another evidence is the wrinkling and the parchment appearance of the skin. The treatment herein advocated antidotes this drying process, because it stimulates normal secretion and excretion and keeps the temperature of the body normal. Thus it is a rejuvenator excelled by none, and scarcely equaled by any other mode known. It has cured inebriety and also the habit of tobacco using. As it has proved serviceable as an anti-narcotic, I am encouraged to hope that it will prove useful in liberating those who are enslaved by opium or morphine.

CHAPTER XVIII.

INSTRUCTIONS FOR THE SAFE AND SPEEDY CURE OF DISEASES NAMED BY THE USE OF THE RESURRECTED HYGIENIC METHOD.

THOSE who have read carefully the preceding chapter, and have grasped the principle therein taught, will perceive the connection between the principle and the mode of treatment. Names of diseases sometimes mislead. Never forget that disease is one: the manifestations are many.

Ague.—Begin to administer full injection one hour before the chill takes place. After the injection is evacuated, wrap up warm and drink hot water till gentle sweating results, keep quiet and warm for at least one hour after the time for the recurrence of the chill has passed. Also administer a full injection when the fever begins to rise and sponge the skin with cold water. Repeat if needed.

Angina Pectoris, or Breast Pang.—If the patient be warned of the attack, the full injection should be administered as speedily as possible; if the attack come on without warning, give hot water to drink and rub the spine; do not spend time in taking off the clothing, but rub over the clothing. Apply moist heat to the stomach and extremities, and allow the patient to rest as long as desired.

Apoplexy.—At an attack evacuate the bowels by injection as speedily as possible. Apply moist heat to the lower portion of the spine.

Asiatic Cholera.—Full injection of water of the temperature of 105 degrees Fahrenheit, which must be retained several minutes. Bathe the skin with water, apply warm fomentations over the stomach, wrap warm, especially the extremities, and give hot water to drink. Repeat as needed.

Asthma.—Full injection every night. Wear a loose flannel band down the spine next the skin. Take a vapor bath twice a week, followed by a rubbing with olive oil. Flesh, butter, or any kind of fat should not be eaten. Drink hot water before meals, and at a paroxysm. Keep the extremities dry and warm. Take deep breathing exercise every day. Walk and stand erect. Recline for half an hour after each meal.

Bright's Disease.—Full injection every night. After the evacuation of the injection, administer a supplementary injection of one-half to one pint, which must be retained for absorption. Wear a flannel binder around the loins. Keep the extremities warm and dry. Bathe the whole skin every day, after which rub with olive oil. Do not eat flesh, nor drink spirituous liquors or coffee.

Bronchitis.—In the acute form it may be in some instances necessary to lie in bed a few days. Take full injection once or twice a day. Apply moist heat to the back over the lungs and cold to the chest till the attack abates, then rub with olive oil. Keep the extremities warm.

Chronic Bronchitis.—Take the full injection every night. Wear a flannel band down the spine next the skin. Keep the extremities warm and dry. Bathe the skin every day, dry and rub with olive oil. Avoid quick changes of temperature when possible.

Catarrh is a systemic disease with a local manifestation. Improvement will attend the use of the full injection, together with the care of the skin, &c., but the local manifestation must be treated according to its character. I will gladly give advice free to anyone who writes. To save time, describe character of mucous, whether watery, or slimy, or sticky, &c., and whether white, gray, yellow or bloody; also whether there be pain or soreness, offensive breath or cough; also color of tongue, condition of hearing, sight, &c.

Consumption.—If the disease be in the first stage the probability is that it is curable; if, after cavities in the lungs have formed, cure is doubtful. But relief can be obtained by Natural treatment. Administer full injection every night, followed by supplementary injection prepared as follows: Take the yolk of an egg, two teaspoonfuls of olive oil, and a cupful of water from 100 degrees to 200 degrees Fahrenheit. Rub the yolk of the egg and the oil together in a bowl or mortar till intimately mixed, add slowly the hot water, stirring constantly to make intimate union. Inject this when cool enough and retain it. Repeat three to six times a day. Take a full warm bath twice or three times a week, followed by a sponging of cold water; dry and rub with olive oil. Wear a flannel band on the spine next the skin. Do not wear furs or skins. Tight-lacing and high-heeled boots are injurious; the consumptive who insists on their use will never become well. Avoid coffee, tea and spirituous liquors. Drink hot water. Eat unleavened, whole wheat or Graham bread and cereals generally; also onions, cabbage, celery, carrots, beats, pulse and ripe fruits. Treat the chill and fever as directed elsewhere in this book.

Chills and Fever.—See Ague.

Cholera Infantum.—See Asiatic Cholera.

Colic.—Full injection. Repeat as needed.

Constipation.—Full injection every night. Knead the bowels every day. Eat Graham or whole wheat bread and ripe fruit.

Convulsions.—If in infants teething, administer full injection whether there be diarrhea or not. If the head be hot, apply towel wrung out of cold water; renew as it becomes warmed. If through over-feeding, give warm water to cause vomiting. If through “cussedness” in people of responsible age, administer full injection of weak infusion of cayenne, or give it to drink in teaspoonfuls. If epileptic, administer full injection every night, and also before an attack if sufficient warning be given; let the patient rest. Eat food easy of digestion. Rub the spine once or twice a day for ten minutes at a time, the hand of the operator being lubricated with olive oil.

Corpulency.—Full injection every night. Do not eat fat nor late suppers. Take plenty of physical exercise.

Chronic Coughs.—Full injection and hot water drinking are enough in some cases; to these add spinal rubbing, wearing a flannel band down the spine, and keeping the extremities warm and dry. The vast majority are curable. A water pack around the neck at night is a valuable assistant. The pack is prepared by folding a handkerchief or napkin to a convenient width, wring it out of cold or warm water, and apply next to the skin; cover this with flannel, two or three fold, and fix with a nursery pin.

Croup.—Treat as for inflammation of the throat.

Diabetes.—Full injection every night, followed by

supplementary injection, which must be retained. Drink hot water which has been boiled. Eat whole wheat or Graham bread, cabbage, celery, berries, fruits and nuts. Wear flannel next the skin. Take full warm water bath twice a week. Sponge the skin with fresh water every day, and rub with olive oil. If very thirsty, drink infusion of lemon and water.

Diarrhea.—See Asiatic Cholera.

Diphtheria.—Full injections from two to four times every twenty-four hours, according to the height and persistency of the fever. Give as much boiled water to drink as desired. Keep the body warm, especially the extremities.

Dropsy.—Full injection every night. Knead the bowels well to make sure of a complete evacuation. Administer a supplementary injection of warm water, which must be retained. The skin must be sponged over every day with water; dry and rub vigorously with olive oil. The rubbing must not be hurried through; half an hour is not too long to spend over it. Drink hot water or distilled water freely, eat carrots, parsnips, turnips, apples, &c. Take a vapor bath two or three times a week, followed by water sponging, and rubbing with olive oil. Wear a warm water pack around the loins during the night, and also during the day, if desired; if worn during the day it should be changed at morning, noon and night.

Dysentery.—Patient must lie with hips raised till convalescing. Full injection every night. If blood be discharged, use a pint of cold water, which may be retained. Repeat this injection after every action of the bowels. Keep extremities warm. Apply moist heat to the loins and cold to the abdomen. Sponge over with water once or twice daily.

Erysipelas.—Treat same as Hives.

Fevers.—All kinds of fever are a manifestation of the efforts of the vital system to rid the body of material incompatible with health, which has found its way to the circulation and thence into the tissues; and as this material, incompatible with health, is stubborn and refuses to be eliminated, the vital system becomes angry, and in its fury consumes healthy tissue too quickly, while the material incompatible with health is consumed very slowly. The true mode of curing fever is to use means which will restore the temperature of the body to normal consistent with the processes of life. This method of treatment does this most efficiently and with perfect safety to the patient. Reference to the treatment of Ague, Diphtheria, Dysentery, &c., will be sufficient.

Hay Fever, or Hay Asthma.—This is a peculiar affection manifested on the mucous membrane of the respiratory tract. The cure is to re-establish the health of the mucous membrane. This is effected by systemic treatment, and sponging the whole body with warm water and rubbing with olive oil daily. The spine should receive special attention by rubbing. The head should never be omitted in this treatment. Anoint the mucous membrane at the entrance of the nostrils three times a day with olive oil.

Headaches of any kind are cured by enemas. No specific instructions need be given, as headaches of all forms vanish quickly by their use.

Heart Disease.—The vast majority of cases of heart disease are cured by this treatment. Persons troubled with any kind of heart disease can rely upon help in

every instance when our treatment is faithfully carried out.

Hives.—This troublesome skin disease is soon relieved and cured by injections and baths. Administer a supplementary injection of one pint, which must be retained.

Influenza is promptly relieved, and in most cases quickly cured, by full and repeated injections. If any other help be needed, bathe with warm water, rub with olive oil, and inhale warm vapor.

Inflammations of the Brain, Eyes, Throat, Lungs, Heart, Stomach, Liver, Kidneys, Bowels, Bladder, &c., are reduced safely, speedily and pleasantly by hygienic method of treatment. Inflammation is local fever, but it frequently affects the whole system so as to produce general fever. The aim of treatment is to cool the part specially attacked, and draw blood to other parts of the body. In inflammation of any vital organ the extremities are usually cold; these must be warmed by the application of moist heat, even if they be hot and dry. The skin must be bathed frequently as already directed in the treatment of fever, &c., and full injections administered from two to four times a day, according to the height of the temperature. If this be done promptly, the probability is that the inflammation will be prevented from developing and health restored quickly; and if it should not be prevented from developing, it will be shortened and danger reduced to the minimum. If the brain or any part of the head be the seat of inflammation, apply water over the head so as to soak the scalp. Do not hurry over this, but apply it affectionately as long as it is comfortable to the patient, then cover with a well-fitting cotton cap with down inside. When this application is dried, it must be repeated till the inflam-

mation abates. If the throat be the seat of inflammation, apply a cold water pack to the throat; renew when warm. If the lungs or the heart be the seat of inflammation, apply moist heat to the back, and towel wrung out of cold water to the front, this cold application must be renewed when warm. If the stomach be the seat of inflammation, apply water to the head, covered by a cloth of several folds wrung out of tepid water. Over the stomach apply wet cloths, and moist heat to the back. Give tepid water to drink which has been boiled as freely as desired. Inflammation of the liver, kidneys, bowels or bladder is treated in the same way as the stomach, the location of the organs affected being the guide for the applications, remembering that in all cases of inflammation of the vital system, that moist heat is applied to the back and cold to the front of the trunk. The treatment given above for inflammation, is in addition to the full injections, together with such diet as is easy of digestion.

Jaundice.—Full injection every night, and hot water sipping every five minutes, faithfully persevered in will certainly cure this ailment. People who are subject to jaundice should not eat flesh. Slippery elm gruel is excellent diet in this condition.

Lead Colic.—Proceed as for colic. Administer a supplementary injection of water one cupful, which must be retained. Repeat treatment two or three times a day till substantial relief is given, then once a day until well.

Measles.—Treat same as for acute bronchitis. If the eruption be tardy, put the patient in a blanket pack, that is, a blanket rung out of hot water; this will soon bring out the eruption. The patient should not be allowed to go out of the house until fully recovered.

Neuralgia is Nerve Pain.—It is the entreaty of the nerves for healthy blood. It mostly affects persons of spare habit. The cure is to re-establish healthy nutrition. Hygienic treatment will do this efficiently. In addition to the full injection once or twice a day, a supplementary injection, as mentioned under the head of Consumption, must be taken and retained. Apply hot fomentations to the seat of pain; if the pain be in the head, and the head be cold, wrap it in a small blanket wrung out of hot water; if the head be hot, wrap it in a towel wrung out of cold water; renew if needed. When taken off, dry the head, rub with olive oil, and cover with a dry woolen hood. When an irritable stomach is the cause of neuralgic attacks, easily digested food should be taken in small quantities, at short intervals; say a cupful of slippery elm gruel, or oat meal jelly, every one or two hours. Also drink hot water as a beverage, instead of tea, coffee, &c.

Offensive Perspiration, whether general or local, also offensive breath, are cured by full injections and frequent hot air baths.

Pleurisy.—Treat same as for inflammation of the lungs.

Quinsy.—Use the systemic treatment. Apply moist heat to the lower extremities, and cold packs to the front of the neck. Gargle frequently with hot water. If the inflammation should have progressed too far to prevent suppuration, apply hot packs to the neck till suppuration is well established.

Retention of Urine.—In addition to the full injection, inject water of the same temperature into the urethra. Spinal rubbing helps.

Rheumatism.—Injections cure rheumatism, because they bring about a healthy removal of material incom-

patible with health. Local treatment, in the shape of moist or dry heat, is a valuable assistant.

Rupture.—In new cases nothing will reduce the tumor so quickly as the injection. In old cases the injection should be used regularly to insure comfort and safety. A radical cure may be effected by special means.

Sciatica.—Treat same as neuralgia.

Skin Diseases.—Parasitic skin disease as Itch, and Ring-worm, scaly and crusty skin, is cured by systemic treatment and application of olive oil. Avoid fat in the diet, also tea, coffee or alcoholic stimulants. Some forms of skin disease are caused by mercurial or arsenical medication; these are very difficult to cure; some cases are incurable. Ordinary washing soap and some fancy soaps used for washing the skin produce and continue skin disease.

Worms.—Injections of infusion of quassia chips, one-half ounce of the chips to every quart of water, used every day for several weeks, will rid the system of worms.

In connection with the resurrected hygiene, other hygienic measures are essential, such as cleanliness, a systematic course of external bathing, proper care and attention to diet, exercise, hardening, &c., &c.

The office of exercise and hardening is twofold. The all-absorbing desire in childhood for gambols and sports is in deference to this law of Nature, and is essential for the developing of their power and strength, and while the need of exercise is not so stringently demanded for adults, it is, nevertheless, one of the primary requisites for robust health. Rust is more pernicious than wear. To rust out implies a reduction of the dimensions and power of the organs from disease. To wear out conveys

the idea of overtax. All departments of our being are subservient to this law. A fair share of mental work is necessary in order to retain a fair share of mental vigor, and very fortunately circumstanced is that man or woman whose occupation carries with it a certain amount of physical activity. One of the banes of civilization is the great amount of sedentary work where brain and hand are employed at the desk.

This subject has been discussed till it is almost threadbare, and yet, like similar matters pertaining to physiology and hygiene, its importance is very slenderly recognized, and there are only a limited number of the inhabitants of large cities who appropriately understand the great import of this matter. An exercise, however, that is fascinating and entertaining it is sometimes difficult to find. When a man's business occupation demands that he shall walk a couple of miles, he responds cheerfully, urged to do this by a knowledge of its necessity; but his energy rebels if requested to indulge in a two-mile walk for the recuperation of his constitution.

Outdoor sports—for instance, lawn-tennis is an admirable exercise, as nearly every muscle in the body is called into use. The open air is the scene of this festivity, and men and women are the actors.

Roller-skating made its advent like a whirlwind east and west of the Atlantic, but its disadvantage was the fact that it was usually indulged in in a closed room, while the atmosphere was more or less contaminated by dust. This exercise was captivating, but many of its devotees were injured by excess. That it was not participated in at the beginning with a greater degree of moderation is to be deplored, from the fact that wet

weather did not forbid its enjoyment, and the sudden collapse should not have occurred.

Rowing and wheeling are commendable exercises, and possess a great advantage over walking, from the fact that the trunk of the body is in a state of rest, and a considerable amount of work can be executed without occasioning an approximate degree of fatigue, as would be consequent on walking where the legs supported the body. A habit of stooping is acquired by many rowers, and many wheelmen possess the ridiculous habit of stooping while occupying the saddle, which is needless if the seat be sufficiently near to the handle-bars, and the latter elevated enough to be easy of access when in an erect position. The open air, if possible should always be selected, it matters not what form of exercise is chosen.

Perspiration is a desirable adjunct if it can be induced without the exercise becoming too severe. A great defect is exhibited in this particular by the time-respected effort of walking. The legs are called upon to support the entire weight of the body. The walker finds himself fatigued before perspiration is induced, which is not the case with lawn-tennis or baseball. The wheelman or rower, however, induces a perspiration before experiencing any great fatigue, because the seat sustains the weight of the body.

A most healthful exercise is horseback riding, and to a great many it is extremely exhilarating and attractive, and that it is beyond the grasp of the great army of workers is to be deplored.

There is merit attached to the gymnasium, but exercise carried on in an enclosed building does not possess the advantages that are received in the open air, at the

same time it presents recreation when out-of-door weather is unpropitious. But a sense of weariness is soon experienced by the followers of this mode of enjoyment. That an exercise must be attractive before it can disperse any practical or permanent benefit is an indispensable requirement, and for this reason gymnasium exercises in a brief period become mechanical, consequently irksome.

The primary object is to select an exercise that will prove durable in its attractiveness. Those who lead sedentary lives can avail themselves of the privilege of exercising with dumb-bells and Indian clubs in the privacy of their rooms in all conditions of weather, but their fascination lasts but a few months.

When necessity compels a woman to employ one day in each week manipulating clothes over a wash-board, or in sweeping and dusting, from a health standpoint she is to be regarded as more fortunate than others whose circumstances have placed them beyond the necessity of such exercise. When the wash-tub and broom-handle work, however, is carried to an excess, it becomes detrimental. The same law is applicable to exercises whether employed for health or pleasure.

Lifelong injuries are received by many young men from excessive indulgence in boat-racing, bicycle-racing, and other contested games.

Limited territory frequently forces persons to perform an exceeding amount of work, but only culture is needed for maturing a reasonable amount of common sense, and a way to employ it, to insist upon young men and women availing themselves of all needful opportunities for healthful recreation, at the same time avoid incur-

ring physical injury by excessive indulgence in severe athletic contest.

The general notion prevails that the value of exercise is in proportion to its severity, while in reality it is quite the reverse. The lightest and simplest methods of exercise are responsible for the most valuable results in the muscular development of the physical. In this exists the merits of the bicycle, and while it is no doubt correct that racing and going up steep hills prove injurious, it is also true that on a smooth, good road one may make the exercise as gentle as wished; the fact that the seat sustains the weight of the body, and that only a limited exertion of the limbs is necessary to propel one at a walking pace, brings this recreation in reach of nearly all persons, irrespective of a debilitated state, when they have acquired the art of balancing the wheel. To those of sedentary habits, and readers, I would urge two or three hours of exercise daily. At the same time a protest should be entered against indulging in racing or strenuous exercise, or stooping positions. On smooth, level ground one can ride the wheel a distance of ten miles in the same time, and with as little exertion as would be required to walk one-fourth the distance. This will materially assist in hardening the constitution, and enable one to more successfully ward off disease; but the vital force will become exhausted if carried to an excess.

In this connection I wish to call your attention to an article recently put upon the market by my son, under the name of Anderson's Athletic Apparatus, which possesses all of the strongest and most meritorious points of other exercising machines, with many additional valuable improvements not contained in others. By its use

every portion and muscle of the body may become invigorated and strengthened, a perfect physical development insured, as well as inducing health, strength, vigor, beauty, grace and refreshing sleep. Wrinkles will be removed, the skin rendered clear and firm, and flesh can be increased or diminished at will. One of its most commendable features is the fact that it may be carried in the pocket and employed indoors or out of doors at any opportune moment that the discretion of the owner may suggest. The cost of the apparatus is about one-tenth that of inferior articles.

Vital force also demands a portion of our attention. The necessity of guarding and protecting vital force, one of the most important, at the same time least understood, of any subject related to health and hygiene, should receive most careful consideration and study. Every person is cognizant of the importance of having a surplus for a future demand in reserve with his banker. The simile is more closely allied than the reader might at first concede. The indispensability of money in order to accomplish one's ambitions in life in the relations of man to man is too well known. Vital force is equally important in the physiological empire. Unfortunately there exists this difference: One readily knows if more cash is deposited than is taken out, also if the drafts are in excess of the deposits; but this rule is not applicable in negotiations with the bank of life. Self-regulating largely predominates in the human organism. Its construction and arrangements are such that if excessive drafts during youth and middle age are made upon the vital forces, an appropriate arrangement is also provided by Nature, and the necessary amount of vitality is forthcoming. When these forces are being withdrawn, when

the drafts exceed the deposits, no pronounced intimation of the fact is vouchsafed the individual that life's forces are becoming extinct.

In a certain locality where the temperature in winter often descends to 20, 30 and even 40 degrees below freezing, a young man who had just passed the twentieth mile-post in the journey of life, occupied his time in hauling loads of wood to a village five or six miles distant. It was his boast that he required no coat in winter, that he could travel the distance over rough roads with a sluggish team on the coldest days without the protection of even an undercoat. The fact that this young man, the scion of a family of robust vigor and muscles of iron, was constantly depreciating his surplus was apparent. Soon after attaining the age of thirty years he became an invalid, and death came a few years later. By this man the hardening process was carried to an excess.

During the recent war with Spain some most unexpected facts were developed in reference to our soldiers. Companies comprised of farmers' sons and the rough riders of the western plains, during the exigencies and strain of active duty, exhibited minor powers of endurance when compared to young men of the towns, clerks, salesmen, &c., who had always been shielded in well-arranged and well-ventilated offices and stores, and who had never been called upon to withstand the influences of a debilitating climate, and while not possessing the muscular force, and not inured to hardships, as were the farmers and laborers, notwithstanding proved themselves more able to cope with the hardships of an active campaign. This phenomenon admits of ready solution. The supply of vital force with the yeomanry had con-

stantly been diminished. As previously remarked, the self-adjusting machinery had not before sounded the danger signal; the supply had apparently increased with the draft.

This same principle will apply to persons whose vocation demands an exposure to a rigorous climate. To all appearances in the possession of exceedingly good health, with finely matured physical frames, used to habits fraught with hardships and exposure, yet when a crisis comes and an additional strain is added, these persons whose supply had not equaled the drain will succumb earlier than others who do not possess such fine muscular development.

Surprise is often expressed over the death of a friend or an acquaintance, who passed away after a few days' illness, because he or she had always appeared robust and strong. The robust looking man, who in youth or middle age succumbs to an attack of illness, has been accustomed, in common parlance, to "burning the candle at both ends," to have issued far greater drafts upon his vital force than he had provided for.

There are many ways by which men and women tax too heavily their surplus of vital force. One way is by accustoming themselves to five or six, sometimes only four hours of sleep, devoting the rest of the twenty-four to doing two days' work. By a most generous provision of Nature the more a person demands of the organism, the greater apparently is the response, and it is quite true that one in vigorous health may for years sleep one, two or even three hours less than Nature demands and still have the semblance of being vigorous and strong. The day of retribution dawns at last, the contagion of an epidemic enters such a system, there re-

mains no reserve of vitality sufficient to eject the intruder, and the end is collapse and death. Not only the patient but his friends have no idea of the true cause of the dissolution. It may be true that another member of the same family is exposed to the infection, and either does not have an attack, or, if he does, makes a speedy recovery. An observant mind will readily recognize the fact that where two are exposed to the same disease, and one escapes with comparatively small or no danger, while the other succumbs, the reason is obvious—the one possesses a large amount of vital force in reserve, while the other has overdrawn his physical bank account.

It is to be regretted that loss of sleep is only one of the many methods required to deplete one's vitality. With many it is a custom not only to devote the full working hours of the day to business, but bring its perplexing problems home to their firesides and domestic circles, and are thus engaged in mental strain substantially all their waking hours. When, after a few years of labor, the collapse ensues, the victim and his family are in a dilemma to assign a reason for it.

All indulgences in the use of narcotics and poisons are equally relegated by this law. The vital forces are exhilarated and rendered unusually active by the use of such an agent as alcohol. This unnatural activity is invariably succeeded by a corresponding lowering of the nervous system. This refers to tonics of every description—tea, coffee, tobacco, alcohol or opium.

These instances are analogous to the case of the young man who exposed himself to the rigors of cold weather without sufficient clothing. The trumpet of danger was not at first sounded, but followed later. By one person

a moderate quantity of tea, coffee, tobacco or alcohol may be used with no apparent bad effect compared to another who has been an abstainer from all of these, but when placed in the balance, the former is "weighed and found wanting."

The vital force of each individual is regulated by the temperateness of his or her life, together with the inherent vigor of each. Those who are emphatically strong and robust can take on an astonishing amount of these poisons with comparative defiance of the results, but the law is as inexorable as was that of the Medes and Persians of old—it never varies.

The man or woman who deprives himself or herself of the requisite amount of sleep is reducing the vital force, and this is equally applicable to all who indulge in overwork or any of the stimulants alluded to above. Prudent and judicious exercise is a needed requirement, but contests in athletic sports have a tendency to overstrain, and death in many instances has resulted from too great an indulgence in these sports, while numerous others have sustained lasting injury.

The graduate of the university, who has damaged himself by overindulgence in athletic sports, has still sufficient vital store to authorize himself to again overstrain when he reaches competitive contests of professional or business life, and the sum total comprising lack of sleep, overwork, &c., constitute the cause of his premature decline and death. We say premature, though he may have reached his three-score-and-ten.

Fright and intense anxiety are pronounced drains upon the vital force. A woman exceedingly anxious in reference to the welfare of a son during the recent war, received a telegram containing the glad tidings that

peace had been declared, that war was over and her son was secure from danger. Without informing herself of the nature of the telegram, but prostrated by her dread of news unfavorable, her death was almost instantaneous.

One of the superior teachings of the Mind Cure or Christian Science is that it subdues fear, consequently cuts off one source for the depletion of vital force.

Anger or rage, as well as ceaseless fretting, is a severe tax upon the vital force, and for this very potent reason, if no other, it is a condition that all should try to shun. Another prolific source of depressed vitality, dwarfed usefulness and shortened life, is the indulgence of the passions. In this as well as other sources the victim is unaware that the foundation of his powers is being rendered insecure; but proofs are not lacking notwithstanding that this is true.

I earnestly insist that the seeking of pleasure for pleasure's sake wherein any physical act is concerned, is not legitimate, and a transgression of this law inevitably leads to a greater or less diminution of the powers of living. If the indulgence of the sexual relation, except for purposes of propagation, could be refrained from, an astonishing improvement and greater freedom from nervous diseases, and all diseased conditions that have their origin in the nervous system, would be speedily made manifest.

This list could be extended to much greater length, but possibly sufficient has been enumerated to convince the reflective student of hygiene with the great importance of the subject. My chief aim is to impress upon the reader that because there is no daily registry of the detriment the system sustains by overwork, insufficient

sleep, overindulgence in eating, the use of narcotics and stimulants, the giving way to the appetites and passions, it is not a consequence that there is not a daily depletion of the natural force of the individual—in fact, there exists very abundant proof that such a deterioration is inevitable.

The insane asylums have as occupants thousands of persons, while tens of thousands are enduring an ever-present death of gloom and melancholy as the result of an exhausted nervous system, superinduced by habits of poison, excesses and dietetic errors.

Disease is the punishment of ignorance! Its effects are lasting, and may extend over a period of years, not showing themselves until some special exciting cause occurs.

Nine-tenths of Insanity, Paralysis, and Consumption of the present day had their seed sown in early life.

The higher a person's intelligence and nervous organization, the severer will the evil effects be felt.

Its treatment, to be successful, must not only stop the secret losses taking place, but heal and strengthen the diseased and relaxed parts, and give again to the blood, brain and nerves the vital ingredients that have so long been drained away.

The evil effect of abuse may not appear until many years after the original cause was indulged in, and even then not until it has long been forgotten.

The fact that a man may look healthy and robust is no criterion that he is so, and no guarantee that in a year's time he will not have suddenly developed some grave and serious mental or nervous disease, and be dead, insane or a hopeless physical wreck.

Beware of the Free Prescription Fraud who advertises in the papers, who sends you an impossible prescription

and then a C. O. D. package. He is after your money.

Beware of the Electric Belt and Appliance fakir, who promises so much and does so little. Their appliances are worthless and will never cure you.

Beware of the Hindoo, Greek, Aztec, Indian, Persian, Russian, Spanish and Turkish remedy quack, who found his remedy by the light of the moon near a graveyard at midnight. His tricks are too shallow to be swallowed by any intelligent man.

Beware of the Magic charm and Sultan's powder charlatan; he is as bad as the rest.

Beware of the man or company who say they can cure you in two weeks. That is nonsense. It has taken you years to break down your system and it will take time to build you up.

Beware of the man who claims to be a fellow-sufferer and who wants to send you—free of charge—the prescription that cured him. Who pays for all his expensive advertising? You, if you patronize him; or do you believe he does it only out of kindness and for the benefit of suffering humanity?

Beware of the man who offers to send you medicine to be paid for when cured; he will ask you to bring the endorsement of your postmaster and of two merchants, guaranteeing the payment of the bill. The kind man who offers to trust you knows full well that you do not wish to let the whole town know of your affliction, and works on the principle that you will send him cash rather than expose yourself.

Don't be deceived; medicines never cure. If you need advice, seek it from one who has made a study of Nature's laws, thus saving money, health and possibly life itself.

CHAPTER XIX.

THE MORAL BEARINGS OF ERRONEOUS PHYSICAL APPETITES.

THIS is a subject rarely discussed, either by physiologists, philanthropists or theologians. Yet it is one of vast importance, and ought to draw forth the intellectual and moral energies of those who are devoted to the elevation and salvation of the human race. It is one which ought especially to come from the pulpit, as a part instituted for the eternal well-being of men; one which every minister should make familiar to his own mind, and give with clearness and force to the people.

Every clergyman ought evidently to so study the laws of physical life, and their bearings on the mind, that he may be able to speak on this subject correctly, and, by an example of obedience to physical law, to preach it forcibly to his followers. He should urge them, by precept and example, to "abstain from fleshly lusts which war against the soul."

Every indulgence of any unnatural appetite produces a morbid state of the physical system. Every indulgence at war with natural instinct, is at war with the healthy condition of every function of organic life. Appetites which the author of our being never instituted, are so many violations of natural law, and they secure for the offender, sooner or later to be administered, a certain and unavoidable penalty. Every such violation of law is a sin against physical life, exposing us to

physical suffering; and, when it is done consciously, it is a sin against moral obligation. Hence the importance of trying to know the difference between the instinctive attributes of our being, and the destructive lusts which are made by habit; that we may neither be found sinning against our own bodies or the maker of them.

The creator of our bodies, has arranged the condition of their every fibre and function, and has pledged to maintain their right action, unless disturbed by some foreign agency, till age shall wear out the cords that bind us to life. Every law governing the human system is as truly divine in origin, and character, and authority, as are any other teachings, and every unnecessary and wanton deviation from obedience to this law is certainly a sin. Hence we are as truly under obligation to know and obey. There are instances in which it may be necessary to transgress the laws of health, to answer the demand of some higher obligation, as in cases of illness in the family, where loss of sleep and other privations are unavoidable in the discharge of obvious duty; but when we intelligently violate law for no justifiable end, we commit sin, as certainly as though we commit robbery.

All the kingdoms of Nature reveal the law; but nowhere is this command "so fearfully and wonderfully made" to speak out to an intelligent mind as in our own physical structure. Here Nature has written the law, not by amanuenses, or inspired men, neither on parchment nor on tables of stone, but distinctly upon every living fibre and function of the human body. To needlessly transgress a law of life, is therefore a violation of the law; and from the physical punishment of that sin there is no escape and no redemption. No propitiatory

sacrifice has been made for this form of transgression. In some way, sooner or later, the suffering must come. Every transgression of physical law, committed consciously or unconsciously, unavoidably or wantonly, will receive the penalty made due in natural law; and as just stated, if it be one which is committed under light, and for no worthy object, it becomes a sin. The physical penalty may appear in the form of sickness, broken constitution, premature decay and death, or in all these forms conjoined. The violation of moral obligation, with all its evils of a moral bearing, must be met when Nature shall call us to a final account.

Whoever indulges in any unnatural luxury, produces a morbid action in the system, disturbs the equilibrium of organic vitality, and lessens its native vigor and durability. And this disturbing process is generally so insidious in its course, and so unrecognized in its final developments,—for Nature will bear abuse silently as long as she can,—that the offender does not perceive the cloud of wrath that is gathering over him till he is pelted by the storm; and even then he may be so ignorant of the laws of organic life and their penal code, that he knows not wherefore he is punished. He groans under pains and prostration which he cannot account for, and calls it the common lot of mankind, or the “providence of God,” when it is only the final issue of a long warfare between Nature and his own habits.

If a man would seek to live for no higher purpose than his own personal enjoyment, let him know and obey the laws of his own physical being. He who says, “Let me live while I do live,” and seeks enjoyment by indulgence in morbid appetites, is committing a mighty mistake. He is practicing the very worst kind of hum-

buggery, deception and knavery upon himself. While he expects gain, he experiences loss; and one which perhaps cannot be measured by any ordinary medium of computation. Whoever expects to gain by stepping out of Nature's path into one of his own designing, cheats himself egregiously.

He who tries to be wiser than Nature, makes himself a fool. Nature's path is wide enough for any man's footsteps, and a benevolent Providence has strewed it richly with varied luxuries for his sustenance and enjoyment. Nature has given us natural appetites which, if rightly indulged, will secure physical happiness and longevity. But, if we use those appetites wrongly, or create unnatural ones, and indulge them in any degree, we pervert Nature, and take all the responsibility of painful consequences upon ourselves. We condemn the arrangement of Nature for our welfare and safety, and cast ourselves upon the boisterous sea of life, without compass or rudder, to be tossed, and driven, and dashed upon bars and reefs which stand thick outside of Nature's channel.

Nature has given us these bodies to be our habitation—a dwelling adapted to our highest comfort and welfare. Our individual identity does not consist in the body. The body is not the man. The man is really an invisible being, and his body is the house in which he lives. The eye is no part of the man; it is only the window of the house through which he looks out upon the world. The ear is no part of the man; it is only the medium through which sound is conveyed to the dweller within. The body is a habitation fitted up by Nature, of which man should be a faithful steward and tenant. But if he wantonly destroy that dwelling, suddenly or gradually,

by setting it on fire to enjoy the splendor of the flames, or the grandeur of the lighted clouds of smoke, or by gradually digging away the foundation on which the vital structure is based, he stands charged with the crime of suicide, and must answer to it.

Hence the importance which attaches to a knowledge of the structure and functions of organic life. People comparatively are intelligent upon every subject but this. They know nothing of their habitation, or how to take care of it. They have never even looked in upon many of its apartments, and especially upon those which are the most elevated and important. They seem content with living forever in the very lowest room—the underground, basement story—satisfied with grovelling in mere sensual things, to the entire neglect of the vacant and unfurnished higher portions of their physical being built for the residence of the intellect. They are content with living as menial servants rather than walk up into a higher apartment and be the prince of the palace. They choose rather to be the brute portion of human nature than to rise to the honor of being the soul of humanity, to dwell at a height which is incomparable in contentment and happiness to that formerly enjoyed.

Nature has put every man under obligation to his own being to take care of his habitation. Hence it becomes the duty of every individual, for his own sake, to inform himself on the laws of organized life, and religiously obey them. There is nowhere to be found so great a cause of human suffering as that of ignorance on this subject. Intelligence is the first step toward improvement. If we shut our eyes to light, for fear of its showing sins which we are unwilling to forsake, our criminality will not diminish. There are, perhaps,

none so guilty as those who can see, yet will not. When we shut our eyes to hide our sins, we not only admit the truth of our criminality, but take a course adapted to harden the heart.

Whoever turns away from light in one case, prepares the way to disregard light in another. Whoever violates moral obligation in one way, prepares himself for violating it in another. If we treat our own highest earthly interests with wantonness, we violate principle, which prepares the way for a transgression of it in any other case where temptation assails. He who will be reckless of his own interests, will be likely to be regardless of those of others. He who will defend himself for false gain, will be more likely to cheat others under similar temptations. He who will knowingly murder himself, even by degrees, is more likely to sacrifice the lives of others. Like progress in the commission of crime against society, every violation of principle in eating and drinking blunts the perceptions and admonitions of conscience. He who will smother conscience, because that monitor speaks the truth, to gratify some sensual passion which he knows is ruining himself, will be more likely, from desire of some selfish end, to sacrifice the peace and welfare of others.

As before remarked, it is truly a sin to violate a law of life. In this statement, no comparison was attempted in the magnitude of crimes. This is a matter which no one can fully measure. Yet, not only is a violation of physiological law as truly a sin as theft or robbery, but some comparison may be made in the magnitude of the two crimes. Let us take the sin of highway robbery on the one hand, and that of—gluttony?—this is considered a sin of no small magnitude; alcoholic

intoxication? this, now, is also considered a notable crime;—tobacco-using, a habit as yet uncriminated by public sentiment, may represent the other side of the antithesis.

A man goes out into the highway, and robs his neighbor to the amount of ten thousand dollars. He violates that law which says, "Thou shalt love thy neighbor as thyself," by taking the money of his neighbor, and appropriating it to himself. The magnitude of his crime, so far as its outward practical bearings are concerned, amounted to the sum of ten thousand dollars. Let us put this sum upon one page in the account. Upon the other page we will note, so far as practicable, the amount of damage done by the tobacco habit, and see which is the heavier crime. And while this habit is singled out, it is intended to illustrate, in a degree, the criminality of every other vice which enters the enclosure of the intellect.

The tobacco devotee is every hour of the day undermining his vitality. He is creating a morbid action of his nervous system, increasing the speed of the circulation, adding from fifteen to twenty strokes per minute to the pulse, taking the essence of the weed into the blood, and producing a morbid state of all the fluids and solids of the whole body, and at the same time spitting out of his mouth that which was designed, in its pure state, to be carried with the food into the stomach. By this process he is probably cutting off twenty-five per cent. of his natural period of existence. He is cutting off from fifteen to twenty years from his natural life. How much is this to be reckoned in dollars and cents? How much would he give, when lying, conscious of the facts in the case, upon his premature dying bed, to have

life continued to its natural terminus? If the sum can be named, we will set it down.

How much are his services in the world to be reckoned for the same period of time, provided he is living for some purpose worthy of a man? Then too, while living, he has been constantly diminishing the natural developments of the mind, by impairing the body, the only medium through which it can speak to the world. How much is this loss to be reckoned in dollars and cents? He is also transmitting morbid influences beyond himself to his posterity. He is not only robbing himself and the world of a part of his natural lifetime, and a part of his energies, but he is robbing his own sons and daughters of that which is beyond all price—that which millions of gold cannot buy. No one can keep up a morbid action in his own person, and especially one which directly assails the nervous system, without transmitting a measure of that morbid influence to his posterity,—an influence which may reach even to the third and fourth generation. There is, indeed, no such thing as describing the boundary of its agencies. Like the stone cast into the sea, it moves the waters of the ocean. How can we estimate this damage in dollars and cents?

Then, again, every man guilty of such a habit, is, by his example, leading on an average some half-dozen young men and boys in the same sensual and ungodly course, to incur the damage and guilt which are completing the measure of his own accountability, by his example to incur all the damages and the guilt which are filling up the measure of his own accountability. Now, what is the magnitude of this man's crime? What is the amount when put into dollars and

cents? What the amount of robbery committed, when all the bearings of his course are reckoned up? Will it amount to ten thousand dollars, or will it be an amount beyond all computation? Who, then, is the greater sinner in the light of eternal truth, the man who destroys himself and others by sensualities, or the man who committed this highway robbery of ten thousand dollars?

The right balance of the mental organs very much depends on a right condition and action of the physical system. If such a course be taken as will excite unduly the animal portion of our being, the standard of intellect is depressed. The sure tendency of any unnatural stimulant or narcotic is to degrade the standard of our physical nature, and lower the tone of intellect. Any undue excitement of the nervous system jostles the mental forces; and this process continued, weakens and prostrates them. After a while they come to depend on the physical stimulus to keep them from torpidity, and rouse them to life and action.

Those who have been accustomed to indulgence in artificial stimulants, as a general rule have only given signs of mental power upon exciting occasions. Instead of being always alive to the ready appreciation of everything that is passing, and the immediate aid of every enterprise and every call of humanity, they only now and then wake up to feel and act when the unusually exciting nature of the subject, or a large dose of some stimulating drug, breaks through the cloud that has darkened their mental vision. We sometimes meet with statesmen possessing great breadth and depth of intellect, but whose physical habits have been so at war with Nature that their talents have become compara-

tively buried up in the mire of sensual indulgences, and it now requires a power of stimulus, sufficient under other circumstances to produce a mental earthquake, to bring out their buried resources.

Those who have become long accustomed to excitants and narcotics, have found themselves unable to perform much mental labor without them. When one stream of stimulus has become exhausted, another must be drawn upon; and especially when some extra weight of care, anxiety or labor is to be borne, then a fuller draught of alcoholic drink, or a stronger cup of coffee or tea, or a larger chew of tobacco, must be taken to bring out and goad up the weakened energies of mind to their required bearings. If we would, on all occasions, have our mental forces awake and ready for action, we must preserve the nervous system free from all stimulants. Give to the system healthful nutrition, but no artificial excitement.

Depression of spirits is no uncommon result of continued stimulants and narcotics. Gloominess of mind is closely connected with prostrated nervous energies; and more or less will every nervous system suffer, perceived or unperceived, that is fretted with stimulants. Where there is extra excitement, and its inevitable reaction continually alternating each other, there must be some degree of damage done to the nervous and mental forces; and when that damage becomes considerable, a degree of melancholy is very liable to ensue. This is true in regard to all stimulants, whether alcohol, coffee, tea, opium or tobacco, and especially is it true of the latter.

One writer, relating his experience with tobacco, says: "At times I had feelings which seemed to border

on mental derangement. I felt that everybody hated me, and I, in turn, hated everybody. I often lay awake nights under the most distressing forebodings. I have often arisen in fitful and half-delirious slumbers, and smoked my pipe to obtain temporary relief from these sufferings. I have often thought of suicide, but was deterred by a dread of a hereafter. In a few weeks after entirely relinquishing this habit, all these things were gone, and my health fully restored." Many cases of a similar character from the same and from a similar cause could be given.

An irritable temper is an other evil consequent on the use of stimulants and poisons. Excitants of all kinds, and especially narcotics, disturb the magnetic currents of the nervous system. Magnetism is constantly circulating in the nerves of the whole body; and on the healthy condition of this circulating substance depends, not only the vigorous and healthful state of the whole body, but especially a happy and quiet disposition. A disturbed state of the magnetic circulation is not only constantly tending toward ill-health, but to a fretful, dissatisfied and peevish temper. If, therefore, anyone would cultivate a quiet and unruffled temper of mind, let him carefully abstain from every unnatural appetite. Let him be satisfied with the instincts which Nature has made, and the plentiful means furnished for the gratification of them in the varied fruits of the earth, which are palatable to the taste, nutritious to the digestive system, and unoffending to the vital principle.

Mental imbecility in perceiving and determining against the wrong, is still another result of wrong physical appetites. There is often found want of courage when a wrong habit is seen to take up arms against it

with a determination to conquer or die. The indulgence practiced so enslaves the mind that its power to govern itself is comparatively destroyed. The reins of self-government have fallen from the hands of the higher man into those of the lower. The higher faculties in human nature have become slaves to the despotism of lust. Instead of judgment, reason and conscience holding sway, appetites even lower than those of the brute have gained the ascendancy, and they now sway the sceptre,—appetites contrary to instinct, and such as no brute can be compelled to create. The mental or higher attributes are downtrodden and buried in the dust under the iron heel of despotic lust. He who bows to this foul slavery is no longer a *man*, but has descended below the standard of the beasts of the field.

The people—especially the American people—do not apply philosophy to their eating and drinking. They do not take principle to enforce that self-denial which ought to distinguish them as moral beings; and, failing to use principle here, show signs of too little of it anywhere. He who will not, under light, apply principle to his eating and drinking, will not be likely to be very tenacious of its application anywhere. If animalism bears sway in one case, it is more likely to govern in another. If there be a want of regard for Natural law in our physical nature, there will be less respect for it written anywhere else. If there be a disposition to disregard duty in this, there will be a tendency toward nullifying moral obligation in any other direction. If men will avoid light shining upon one point of duty, they will probably try to shun it in others. If they will bury a living conscience to avoid its rebukes on their self-destruction, they will be likely to stifle its warning

voice on other vices and other crimes. He who would have a clear mind to perceive these things, must have a body with right habits.

Intemperance of any kind will deaden the native acuteness of the perceptive organs. Overeating will not only blunt the vigor of bodily health, but stupefy the intellect. Even a moderate degree of habitual gluttony will turn the purest genius into mere animal lustings which war against Nature and humanity. There are few men of real genius who will make a god of their belly, because elevated intellect will generally be disgusted with such low and grovelling temptations. A high range of thought cannot come down to such sordid things. But there are a few strange and incongruous compounds,—where elevated genius seems surrounded with grovelling sensualities,—where, like an oasis in the midst of the desert, mind has no adequate chance for development and expansion; and where, though it may sometimes show its original gigantic strength, there is still no reason to guide it; where things purely philosophic can be deeply fathomed, but where the perception of the right and the wrong is weak, vague and erratic.

Intemperance is of two kinds: One consists in the overindulgence of natural appetites, the other in creating and indulging those which have no origin in Nature. Nature has given us an inclination for food adapted to the nourishment of the body. Moderation in its use is temperance; immoderate indulgence is intemperance. But even moderation in the use of things as luxuries which were never made for such a purpose is intemperance. To be temperate in the use of natural appetites is to indulge them rightly; but to

be temperate in regard to unnatural indulgences, is to let them entirely alone. "Touch not, taste not, handle not." Temperance is total abstinence from wrong things, and moderation in right things. Either kind of intemperance is at war with the progress and prosperity of mind.

If we would keep the digestive powers of mind free and vigorous, we must preserve a healthy state of physical digestion. There are few things that will so derange and oppress mental efficiency as a deranged stomach. Gloominess and a foreboding of all imaginary evils are common attendants. Deranged physical organs produce a morbid state of mind, and then a morbid state of mind increases the deranged action of the body, so that when this wrong action is once established, the evil consequences increase by constant action and reaction. The origin of the whole difficulty may be in either species of intemperance. It may be by pushing the indulgence of natural appetites beyond their right boundary in respect to quantity, quality or frequency; or it may be the most moderate indulgence in things which were never intended for such a purpose.

The use of meats tends to lessen mental activity. Those especially who are devoting themselves to intellectual pursuits would gain great advantage by total abstinence from them. Their being required for the maintenance of a vigorous muscular system, which is a very popular idea, is a perfect delusion. The cereals and other products from the vegetable kingdom of Nature, such as fruits, nuts, &c., as shown in a former part of this work, contain all the elements necessary for the replenishing of the body, and most of them more largely than the meats. Facts are stubborn things touching

this matter. The laboring Irish, who literally used no meat till they came to this country, are among the most hardy men found in the world. They have constitutions as unyielding as brickbats, and can withstand the hardest knockings, like sledgehammers. But after being here a few years they often become infirm, and die in early life from adopting American habits.

If meats were essential to the sustenance of a vigorous body, then a due proportion might be necessary for mental vigor, because of the dependence of mental development on physical soundness. But if meats are not essential to bodily energy, then we can safely put away that which will embarrass the mental powers.

My son, Prof. L. H. Anderson, in his grand work in connection with The National Institute of Science, Chicago, has influenced thousands to abstain from the use of meats, and they uniformly have said that they had just as much bodily vigor and a far larger amount of mental activity and force in consequence.

But it must be remembered that when we leave off meats, we must not cease eating. Don't try to live on comparatively nothing. Don't go from one extreme to another. The body must have sufficient nourishment. We cannot live upon mere air. But the more simple and unstimulating the food which sustains the body in its healthy and vigorous state, the more active and forcible will be the mental system, while that which deadens the elasticity of muscular fibre stupefies the intellectual forces.

Great sympathy exists between the physical and the moral nature. Physical habits have much to do with the general standard of virtue. Habits which create a morbid action of the bodily functions have a tendency

to produce a morbid state of moral feeling. Any habit which lowers the standard of healthy action in the human system, tends to degrade the powers of the higher nature. Habitual stimulants and narcotics applied to the nervous system, not only drive the body into an early grave, but insidiously produce a torpid state of moral sense. The creation and indulgence of unnatural appetites disturb the balance which was originally given to the organs of the brain. By their action on those portions of brain which relate to the animal propensities, they produce unwonted activity in them by which their influences become disproportioned to those that relate to the moral nature.

Recklessness in bodily habit tends to recklessness in moral character. Those things which fret and derange the stomach, tend to corrode the finer feelings of the mentality. The stomach is an organ of vast controlling power. If this organ is right in its functions, generally all is right that pertains to the health of the body. If it is wrong, then all is wrong. So, too, it has vastly to do with the right formation of moral character. Such is its strong sympathy with the brain and nerves, which form the bond of union between soul and body, that it exerts a powerful influence over moral sentiment. Hence, erroneous eating and drinking inevitably conduce to erroneous thinking and acting. Licentiousness in food and drink leads to licentiousness in matters of moral feeling. A licentious body begets a licentious mind.

Pampering false animal appetites, or pushing natural ones beyond their proper boundary, gives a balance of power to the animal propensities over the moral sentiments; and this process continued, tends to animalize the mind and brutify the higher powers of the man, so

that he ceases to govern himself, and becomes a servile captive to the sway of his own grovelling, sensual passions.

Depraved physical appetites greatly obstruct moral culture in the rising generation. Unnatural luxuries and irregular eating and drinking, by depraving the mind, greatly retard moral instruction bestowed on the young. The mother who would instil virtuous principles into the mind of her child, must begin by establishing in that child right physical habits—right habits of eating and drinking. She must insist on a proper use of natural luxuries, and the utter refusal of unnatural ones. Every mother, therefore, who would secure the physical welfare, and through it the moral and eternal well-being of her children, should be herself a practical physiologist, that she may know what are, and what are not, correct physical habits. She should acquaint herself with the laws that govern physical life, and the nature of the popular sensual indulgences of the day, which war against physical and moral health.

It is a most lamentable fact that scarcely one in a hundred mothers, having such tremendous responsibilities resting on them, has ever read the first word on practical physiology. The great mass of them are as ignorant of the proper physical training to be bestowed on children for their physical and moral soundness as are the herds and flocks on the hills. A vast amount of the crimes of the age are chargeable to the ignorance and indifference on this subject of the mothers of this generation. Even some of those who have read do not appreciate its importance to themselves and others, and are not prepared to enforce its teachings on those under their charge, because their example is wanting. O,

when will they wake up to this matter, and cease exposing themselves to a most fearful accountability?

If the mothers would have their sons become men with healthful bodies and hearts, they must guard them with special care against the gross and engrossing sensualities of the men of this age. They must guard them against the indulgence of every appetite that can injure the stomach and nervous system, especially against the use of stimulants and narcotics. Not only alcohol, but other stimulants should be avoided. The coffees and the teas, as well as that most deadly of all poisons in popular use, tobacco, should be rejected. These sensualities, and especially the tobacco lust, all have their bearings on moral character; and the earlier in life these habits begin, the more powerfully will they lower the standard of moral feeling.

Public school superintendents and teachers have a responsibility in this matter. Pupils with bad eating and drinking habits are less susceptible to instruction. No one at the present day would think of receiving a boy into school who was a habitual user of strong drink. Everyone feels that alcohol so encases the mind that it cannot comparatively be reached with instruction. There are other wrong habits which oppose themselves to instruction. If a pupil should offer himself whose breath and lips, though free from the debasing influences of strong drink, were, nevertheless, corrupted with the taint and defiled with the stain of tobacco or cigarettes, he should be received only on the condition that he would abandon the vile habit.

Meat-eating, especially in the excessive proportion of its present use, has also its moral bearings. By its stimulating properties it acts on the animal organs of

the brain, increasing the activity of the animal propensities. While it gives no additional strength and durability to the muscular system, it renders it more clumsy and torpid, and gives an undue degree of ferocity to the animal propensities. It makes one more animal, and less intellectual and moral. This is a matter not of opinion, but of well-attested and generally acknowledged fact. This brings us up squarely to the question, whether the indulgence of this less natural and not essential form of nutrition shall be considered worth more than all the moral considerations connected with it. It is a habit which must not be placed on the same list with the poisonous drugs, opium, alcohol and tobacco; but it is one that is doing its own work of injury to the tone of human sympathy, and of moral feeling—especially in the excess to which it is indulged in the United States.

The slaughtering of animals has a tendency, on those engaged in the business, to lower their estimate of life in general, and blunt the terror of shedding blood. If my life were to be put into the hands of jurors, where the decision of the case depended in any considerable degree upon their due apprehension of human sympathy, and their right appreciation of human life, let me have any class of enlightened citizens to sit on that jury-bench rather than men from the slaughter-house.

The surgeon is not subject to influences of this sort. He takes his knife in hand not with any feeling of wantonness toward his fellow-being, but with a heart deeply stirred with human sympathy, he severs the morbid portion of the sufferer's flesh that he may save (?) him from ultimate suffering and premature death. He deadens not the flame of fellow-feeling burning in his breast, but keeps it the more alive by its fresh and oft-

repeated kindlings, as case after case comes to his hands for counsel and relief. Not so with the slaughter-man. With wanton hands and indifferent heart, he strikes the fatal blow upon the head of the helpless, unoffending fellow-being, fells him at his feet, and spills his blood upon the ground, and this simply because he hankers for his flesh.

My heart was agonized a few months since at witnessing a scene of slaughter. The poor brute was pursued by men and dogs; the latter seizing him by the ears, and the former, without compunction, applying the head of the axe to his brain. The poor creature ran for life, and bellowed for help. His cries for aid, and his struggles for escape, seemed enough to wake up heaven and earth to his sympathy; but men and dogs, with like carnivorous zeal, pursued till blow after blow brought him to the ground, and the deadly stab was given to the current of life. My heart silently exclaimed: If ever the disposal of my life shall be thrown into the hands of men, let it not fall into the hands of those who butcher life! If ever that statute requiring blood for blood, and life for life, shall cease to disgrace our civil institutions, we must not put butchers in our legislative halls.

Furthermore, one bad physical habit prepares the way for another of a similar kind. Alcoholic drinks, by the morbid influences they produce on the mucous and nervous membranes of the mouth and stomach, create a demand for some other unnatural thing. Thus alcohol prepares the way for tobacco, and tobacco for alcohol. Hence, as a general rule these two articles have been found associated in the same mouth. They are twin sons of that demon who goeth about seeking whom he

may devour. They are two great agents seeking to destroy both mind and body.

Bad physical habits lead also to bad moral habits. Bad physical and bad moral practices move in clusters, and abide together in families. Hence, it is found that the veriest vagabonds on the earth are literally saturated with the combined essences of alcohol and tobacco. The red nose, the filthy lips, and the offensive breath, are the standing ensigns of their calling, and the undisguised badges of the association to which they belong. Nature has fixed her mark of condemnation upon them. She has branded them as culprits awaiting the final issues of their varied and associated crimes.

Liquor-drinking, tobacco-using, licentiousness, gambling and profane swearing form a common brotherhood of vices. Let this entire land be surveyed, and very rarely will there be found a profane oath proceeding from any other than an impure breath and from defiled lips. These and other kindred habits may at any time be found in tippling and gambling recesses, mutually congratulating each other, "Hail fellows, well met!" They are unwilling to be apart, and will probably when once their acquaintance is established continue their associated revellings till they succeed in bringing about not only the moral but physical death of the victim.

Considering the inevitable brotherhood of different morbid appetites, if we would promote temperance in respect to alcoholic drinks, we must put away its twin—tobacco. Those who plead the cause of temperance with tobacco in their mouths, make themselves contemptible in the eyes of all who have any general light on the nature of kindred and associated appetites. While they profess to deny themselves of hurtful lusts,

and are putting them away in one form, they are clinging to them in another. They quit alcohol and make up its loss by putting into the mouth a larger quid of tobacco. They deny themselves of the lesser and continue the stronger poison. They put away the less filthy sin, and supply its lustings with a more enslaving and brutish indulgence,—one whose power to create morbid results is greater than that of the worst kind of liquor when taken with equal excess.

In this matter, temperance men manifest a degrading cowardice. Professing open warfare with a great physical and moral evil, they are still ardently embracing another evil that is doing a worse and more secret work of ruin to the physical and also an extensive injury to the moral welfare of the men of this generation. While they are turning the devil out at one door, they are inviting him in at another. They are wanting in the moral courage necessary to meet the foe in general combat at every avenue, determined to conquer or die. While the man signs the pledge and keeps tobacco in his mouth, he is scarcely half converted to the temperance principle. While he holds on to this accompaniment and substitute for alcohol, he is more liable than though he would abolish both to return again to his cups.

If we would elevate the moral standard in any country or community, we must begin by correcting their physical habits. The people must put away from themselves and the rising generation the practice of unnatural eating and drinking and other physical vices. Is there not a serious declension in the standard of virtue in our own favored America? And is not that declension still moving in its onward and downward course? Look at

the character of the young men of the day. Are they as uniformly attentive to their obligations to parental government, and to moral principle in general, as were the young men through whose fidelity and moral courage our country was released from the British yoke, and made to shine forth in the glorious light of freedom? Can we look for such men as George Washington, Benjamin Franklin, John Quincy Adams, Abraham Lincoln and James A. Garfield to come forth from the ranks of the young men of our own day? If we would see such patriots ripening into public life we must look for them among men whose early habits are like those of the young Washington, the young Franklin, the young Adams, Lincoln and Garfield.

No one who appreciates moral rectitude can take observation upon the demonstrations of immorality that are now given by young men, especially those residing in our large towns and cities, without agony of spirit. Everywhere is the social glass and the inspiring cigar. They drink to rouse them to great hilarity, and smoke to stupefy conscience and becloud its moral vision. Shall we look for high moral worth ever to be developed in such young men?

Is not the standard of moral principle lower among business men than it was in the early history of our country? And is not the standard of moral feeling among them growing lower and lower? Where can be found Nature's noblest work—an honest man? Where the man whose integrity can bear, in all the departments of his sphere in life, the scrutiny of close investigation? Where the man that can be trusted out of sight? Is not there a greater amount of business transacted now with

almost infinitely less adherence to principle than in earlier times?

In political life, where are the men of strictly moral and political integrity? Where the men who serve their country for their country's good—who are determined, whether friends are gained or lost, always to act from principle? Where the men who do not care infinitely more for their own promotion in wealth than for all the highest interests of the land? Where the men, if our country should be invaded, who, like our fathers, would lay freely on their country's altar "their lives, their fortunes and their sacred honors?" Where the men who would come to the rescue to save our standard of civil freedom from being laid prostrate by some foreign power, provided their own personal safety or aggrandizement was not concerned? Where the men who, if our country was invaded, could shed as pure and philanthropic blood as did our fathers in the Revolution? Where those of like patriotism? And "echo answers, where?"

There are men enough, in case of war, who would enlist for the battlefield, as has been amply proven in our recent conflict with Spain; but wrong living would at any rate produce vast armies, no matter whether the war were right or wrong; whether it were based on correct principle, or on the basest selfishness; whether it were called for in self-defence, or a war of vile aggression. They are ready for the fight because their physical habits have provoked undue activity of the animal propensities; the combative and destructive attributes of the mind have gained ascendancy over conscience and human sympathy; the lower man prevails over the higher, till brute ferocity has supplanted that true moral

courage which always controls human wrath, and suffers death for human good.

Look at the politico-moral aspect which our country now presents. See the party feuds and sectional factions which are engendering strife and discontent. A few officious and office-seeking men, void of true patriotism, are endeavoring to promote their own popularity by means adapted to undermine the fundamental principles of a truly republican government, the real basis of human sympathy, and the genuine standard of moral rectitude. There are men who, though professedly zealous for the authority of the constitution, are infinitely more concerned for their own notoriety and elevation than they are for the safety of the Union and the interests of the people. There are men who, though they cry aloud and spare not for the safety of the Union, are so deficient in true patriotism, human sympathy and moral integrity, that they have become the heaviest brakes to the car of American freedom and advancement.

Intelligence and virtue are the two main pillars for the support of a republic. Without these no democratic government can be permanent. General knowledge and moral principle alone can prepare any people to govern themselves. One of those pillars in our republic is sound and firm. Intelligence is widespread, and increasing in all the departments of American society. Let our virtue be equal, and our Union can never be in danger from civil commotion. Let this be wanting, and a government where the widest intelligence prevails will fall by its own hands. And if the standard of virtue shall continue to descend in our own land as it has for the last few years, our government will be found

changed from its original character to that of anarchy and ruin. That principal pillar, virtue, is decaying at its very foundation.

And wherefore this decline in virtue? What can be done to bring back the moral integrity of early times? Let the people bring back the physical habits of early times. Let them bring their eating and drinking into conformity to natural law and moral obligation, and they will effect a mighty change in the standard of virtue. Let the mothers of this day train the rising generation to habits of virtuous eating and drinking, and they will lay a sure basis for virtuous thinking and acting. Let them cease to countenance stimulants and narcotics, and other physical vices which prompt undue animalism and oppress the development of the intellect. Then, and not till then, will the decline of moral feeling cease its ebbing, and virtue's saving power begin its flowing tide.

When we violate any law of organic life we induce a morbid organic action by which we affect, by mere sympathy, the intellectual. But when we war directly against oral instinct by the culture of unnatural appetites, we not only jostle, by sympathy, the healthful harmony of the flesh, but we create a lust which wars against the intellect.

Every unnatural physical appetite, therefore, becomes a warring lust. Everything that is at enmity with the instincts of Nature, creates a diseased condition of the mind. Such is the relation which the inner and outer man bear to each other, that every morbid sensation, every indulgence by the mouth which Nature has never sanctioned, embarrasses its healthful character. More damage is done to the mind at the present day by lustful

idols which find access to the internal man through the medium of the mouth, than in any other way—idol lusts which do not come as the result of natural appetites overreaching their true boundary, but appetites which have no origin in Nature.

Temperance, as before stated, is of two kinds—moderation in the use of right things, and total abstinence from wrong things. Temperance, in the use of bread, is moderation; temperance, in regard to strong drink, is total abstinence. We may be intemperate in the quantity of food. Gluttony buries the intellect in gross sensualism. Untimely eating, through its derangement of physical action, retards and diminishes intellectual zeal. All irregularity in eating embarrasses our mental emotions by disturbing vital functions. A dyspeptic stomach and a torpid liver are the enemies of happiness, and the opponents of true goodness.

The quantity and quality of food suitable at one time is unsuitable at another. That quantity or quality adapted to a man of active or laborious life during the business part of the week, would be unsuitable and morally wrong on Sunday. In many of our large cities and towns especially, people are in the habit of having the largest and richest dinner of the whole week—a sort of Thanksgiving dinner—every Sunday. While they require less and more simple food, they take it more largely and more complicated. While the quantity and the quality oppress the stomach, the mind is also embarrassed; the high-seasoned meats obstruct the reception of truth. In the evening the minister pours out volumes of misdirected eloquence with pathetic earnestness, but instead of preaching to the understanding and the heart, he is preaching to roast

chicken. If he also has too grossly indulged, it is chicken preaching to chicken.

Animal food, at all times, has its bearings on character. It ought to compose no part of a Sunday's diet. But the taking of it at any time retards the progress of the mental faculties. By its oppressive influence on intellect, and by its stimulating power on those animal propensities which, when they gain ascendancy, degrade the moral feeling, it hinders natural developments. This is not a matter of fancy, but of facts. Everybody acknowledges that meats increase the activity of the passions; and if so, then it is a matter of the plainest deduction that they tend to lessen the susceptibility of the mind to the force of truth, and to intellectual advancement.

My Christian friend may say the Bible does not prohibit the use of animal food; true, and it also sanctions some twenty other crimes; nor does it utter any express injunction against gambling. How then do we judge that gambling is a sin? Surely not by explicit declaration, but by a knowledge of facts. What are the nature and effects of gambling? So, too, in regard to the eating of meats. What are the facts? What the nature and effects of meat-eating? Philosophical facts surely reveal Nature's truth with as much plainness and authority as though it were written in the Bible. Now, then, it is a fact, as before stated, that meat-eating stimulates the action of the animal propensities, which, by inordinate activity, must oppress the mental; and this fact is nowhere among intelligent men disputed. Let this fact speak for itself, and let its truth bear at least upon the excessive meat-eaters of the day. The question is not one that should be settled by the voice

of fashion or appetite, but by the testimony of facts.

It may be said, furthermore, the Bible sanctions the use of meats. True, it is allowed; and so the eating of quails, with the consequences, was allowed when the Israelites murmured over the vegetable nourishment which God had furnished them. So polygamy was allowed and legalized. So, too, there was a law requiring a tooth for tooth, breach for breach, eye for eye, and life for life—capital punishment.

To another kind of intemperate habits belongs the use of stimulants and narcotics. While they fret and disturb the nervous system, which is the bond of union between the mind and body, they derange and blunt in a great degree the affections of the heart.

There is no appetite so strong as that which has no origin in Nature. Appetites which are wholly created, and in conflict with our instincts, are the ones which most enslave. Among these there is none so despotic and powerful as the appetite for that loathsome weed which finds entertainment in almost every man's mouth at the present day. There is no other idol god in Christendom which is requiring so large an amount of sacrifice. No other idol is requiring so much to be laid upon its altar of time, of physical and moral energies, and of pecuniary support. It is committing robbery on the Savings Bank of Justice annually of not less than \$5,000,000, and leaving only less than \$1,000,000 for the various benevolent purposes.

Though this habit is so unnecessary, so foolish, so hurtful and so wicked, yet there is none which cannot be given up with less sacrifice of feeling. It gives an appetite that is dearer to its victim than life itself, and its suspension brings terrors which are stronger than

death. Many a man has testified that, though he was fully aware that this indulgence was fast killing him, yet he *could not* give it up. A student at the Indiana State University located in this city, had long been in the habit of using tobacco. In the course of his studies his health failed. He was repeatedly told that it was this which was killing him, and he confessed himself conscious of it. He was told that, unless he would quit it, he must give up the idea of living to acquire an education, and fall a sacrifice to his appetite. With all this staring him in the face he continued its indulgence, left the institution, and soon after died.

This article, being a more powerful poison than alcohol, imprisons its victims within stronger bars and doors. The dram-drinker may be deterred by the moans and tears of a desolate wife and suffering children. But let him who has long continued to pay his devotions to tobacco's burning altar find his wife and children houseless and destitute, if he had no other means for the supply of things needful than to give up his tobacco, the smoking embers on that unholy altar would cry out with unceasing voice, "*We must be gratified?*" No present wants of those depending on his purse, no affection's strong appeals, have eloquence enough to quell the riotings of lust and persuade its worshipper to forever cease this base idolatry.

The cause of humanity would find little sympathy in the hearts of men devoted to tobacco if its demands could not be met without ceasing to burn incense to that god. Let twenty tobacco-users pass before a hut of the poor, where they found, on a cold mid-winter night, a widowed mother with her children shivering over a few dying embers, with no fuel, and suffering

from hunger, having ate their last morsel of bread twelve hours since,—and if their only means of giving relief consisted in giving up this useless habit, and give some portion of the money saved for their relief, probably nineteen out of twenty would pass on, and let them freeze and starve to death. This is a most appalling representation, but one which only needs putting to the test to prove its truthfulness.

If the body sin, it sins always by the consent and dictation of the mind. The body acts not alone. Some of its strongest natural passions are awakened into excess by the agency of thought; and when the passion ripens into action, the mind still assents. All our unnatural appetites originate and continue by erroneous promptings of mind.

When we wage war with our bodies, we war also against our intellect,—not only because a healthy mind is dependent on a healthy body as its medium of development, but because of their mutual sympathy.

The vigor and activity of the mind depend much upon the healthy condition of the vital forces. Whatever, therefore, depresses these, depresses the mental forces.

After long devotion to any powerful unnatural agent, the mental forces are lost without it. A social meeting, composed of those who had long degraded their bodies and depraved the nervous system by such agents, and who had been deprived of them for forty-eight hours, would be a gloomy affair. No signs of sociability would be found there, except the internal moanings of denied lust,—little desire for anything but the refreshing of agonized appetite with its gratification.

Vital force is also engaged in carrying messages, and when so engaged I call it Magnetism.

The functions of these messages is twofold. One object is to change the nature of the vital force in the organism that receives the message. That is more especially the function of intellectual magnetism, and promotes the increase of knowledge and the development of intelligence. The other is to cause an actual transfer of an appreciable amount of vital force.

This transfer I call exchange, because there always seems to be some vital force going out from the recipient to the giver. Those who have given the subject much thought, claim that it is not magnetic exchange which takes place, but magnetic blending—that is, a blending of the vital forces. While I acknowledge that there is sufficient foundation for their opinion, yet I prefer to use the word exchange, because I think that the process which is going on with this unseen substance which I call vital force is analogous to that which is going on in the material world, and while we must acknowledge that there is a constant blending of material products, yet we call the process by which the blending is achieved, exchange.

We are all the time exchanging thoughts, knowledge, affection and sensations, and in those kinds of exchange magnetism plays a most important part, worthy of more careful study than it has yet received.

CHAPTER XX.

EXPLANATION OF PLATES.

PLATE I—*Nervous System*.—No. 1. THE BRAIN: CEREBRAL PORTION. The upper portion of this organ, called Cerebrum, is here exposed. The entire top of the skull is removed, and the Dura Mater—the strong outer membrane, covering the substance of the brain—is dissected off and suspended by a hook over the head. The scalp or integuments covering the skull are turned down over the eyes and lower back part of the head. The divided rim of bone can be seen horizontally just above the turned-down scalp.

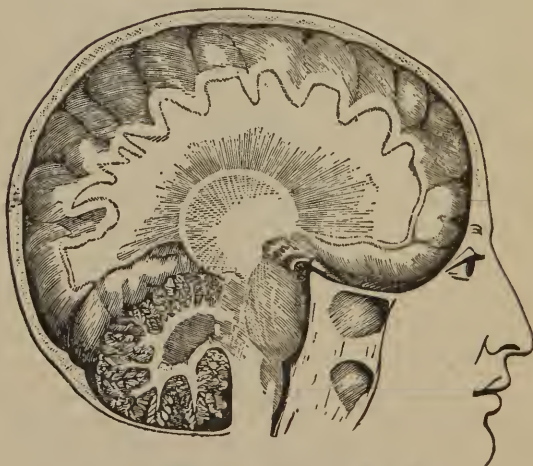
Here can be seen the convolutions, or bundles of brain, occupying the left side of the head, called the left hemisphere. No. 1 shows the perpendicular section of the inside of the same hemisphere. This figure presents the outside of the same division. This exposed portion, united with its corresponding portion on the other unseen side of the head, makes that upper and larger part of the whole brain which is called Cerebrum. Another smaller portion, which lies in the back and lower part of the skull, is called Cerebellum. The dividing line between the Cerebrum and the Cerebellum, runs horizontally from side to side of the head, corresponding to the line representing the section of the skull. Each hemisphere of the Cerebrum is subdivided into lobes, with division lines running from side to side of the head. They are called anterior, middle, and posterior lobes.

The Cerebrum, or upper portion of the brain, seen

PLATE I. NERVOUS SYSTEM.



NO 1 BRAIN CEREBRAL PORTION



NO. 2 BRAIN, PERPENDICULAR SECTION

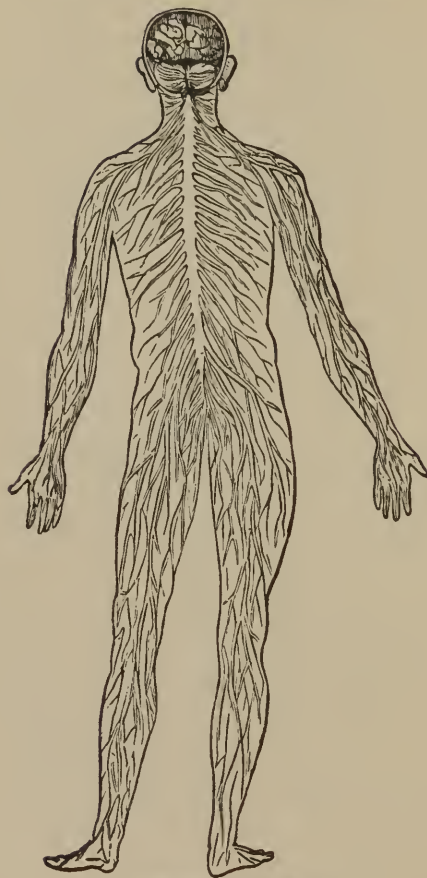
exposed in this figure, is about six or seven times as large as the lower portion or Cerebellum. The upper portion is the seat of the intellectual and moral faculties; the lower, the seat of the animal propensities. The brain governs all the voluntary motions of the whole physical economy by direct volition. The decisions of the will are communicated to all parts of the system, through the agency of the nervous fluid sent through the nerves. If a ligature be applied to a nerve leading to any particular part, that part is no longer controlled by volition.

The involuntary functions are dependent, also, not on the will, but on the same communication of nervous fluid. If the nerve which brings the brain and stomach into sympathy be severed, digestion can no longer be performed. This is true, also, of the action of the lungs, and all other involuntary functions. Any substance introduced into the system, which produces a morbid condition of the nerves themselves, or the electro-vital fluid circulating in them, is gradually undermining the durability of vital force, and consequently cutting off a portion of natural longevity.

NO. 2. THE BRAIN: PERPENDICULAR SECTION. A section of this organ is here given, dividing it directly in the centre, from front to back, where Nature has made a division by a fold of the strong membrane, which surrounds the whole brain, called Dura Mater. These two divisions are called right and left hemispheres. This figure shows the inside of the brain by this perpendicular section. Here is exhibited the interior of the organ of *mind*, and the locality of the *soul*.

The wave-like folds which extend from the neck to the face in this figure, represent the outer portions of

PLATE II. NERVOUS SYSTEM.



THE NERVES IN GENERAL

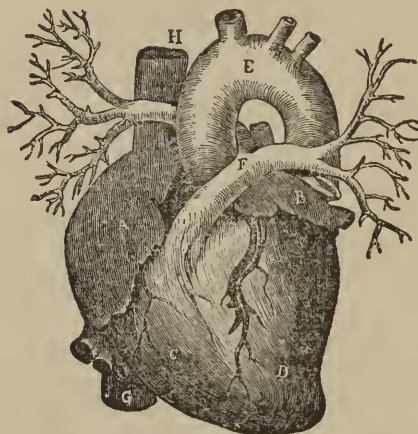
brain, or the soft substance divided into bundles of nerves, which are the location of the different faculties that make up the sum of human character. These have their distinct phrenological developments. About four-fifths of their substance when analyzed are found to be a liquid, called neurine or nervous fluid, or perhaps it might be called vitalized electric fluid, which is evidently the medium and agent of the developments of mind and soul.

Every influence of the will upon our physical system, is exerted through this medium. It is transmitted throughout the whole nervous system, carrying to every quarter the messages of the brain. Like the pure electric fluid transmitted by telegraphic wires, it carries messages back and forth through all parts of the human system. If the smallest member of the body be in distress, information is sent at once to headquarters, the brain, an and order for relief is immediately returned.

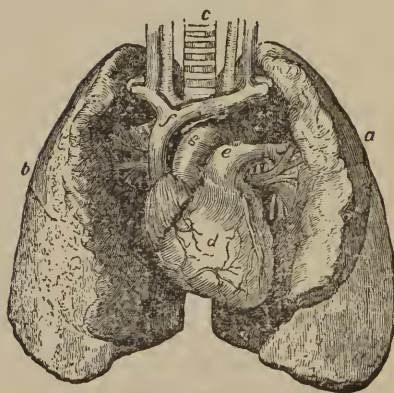
Plate II. Nervous System.—THE NERVES IN GENERAL. This figure gives the nerves of the whole body, distributed to every part of the system, from the crown of the head to the sole of the foot. They are distributed into very minute ramifications, for the purpose of giving power of motion, and for communicating sensation, pleasurable or painful, healthful or morbid, to every minute particle of the system.

Upon these nerves, like so many telegraphic wires, sensations are transmitted from one part of the body to the common centre in the brain, called Sensorium Commune. From this headquarters of telegraphic communication are sent out the decisions of the will to every part of the system. If the nervous fluid be stopped by pressure or injury, then sensation and motive

PLATE III. CIRCULATING SYSTEM.



NO. 1. THE HEART DETACHED.



NO. 2. THE HEART AND LUNGS.

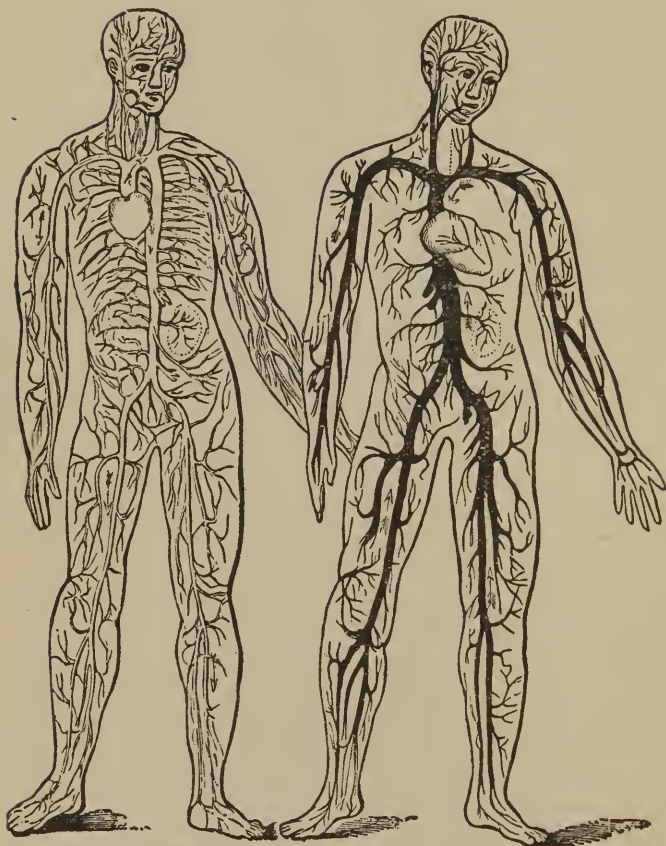
power cease until the obstruction shall be removed. If a limb gets into what we call sleep, it is caused by this nervous fluid being obstructed.

Plate III. The Circulating System.—No. I. THE HEART: ITS AURICLES AND VENTRICLES. The Heart is here presented detached from its location in the body. This organ is the seat of the circulation of blood. It is by the motion of this that the blood is sent throughout the whole system. This consists of alternate contraction and dilation, called pulsation. By these alternate actions the blood is carried to the extreme parts of the body by the arteries, and returned by the veins. This action of alternate contraction and dilation is probably the result of electric attraction and repulsion, by which the entire circulation is carried on.

The heart has two grand divisions, called right and left ventricles. They have sometimes been called two hearts. They are separated by a wall of flesh which is impervious. These two great divisions are divided again: each ventricle having a chamber divided off from its upper part, called right and left auricles. These four are the divisions of the heart. In this figure, *a* denotes the right auricle, *b* the left auricle, *c* the right ventricle, *d* the left ventricle.

The principal blood-vessels of the heart are, the great artery rising from the left ventricle, called aorta, which forms an arch, *e*, and then passes down in front of the spine, and divides into two branches—one for each lower limb. An artery also rises from the right ventricle, called pulmonary artery, *f*, which divides to each lung. The principal veins are *g* and *h*, the great ascending and descending vein, called vena cava, and the pulmonary

PLATE IV. CIRCULATING SYSTEM.



NO. 1. ARTERIES.

NO. 2. VEINS.

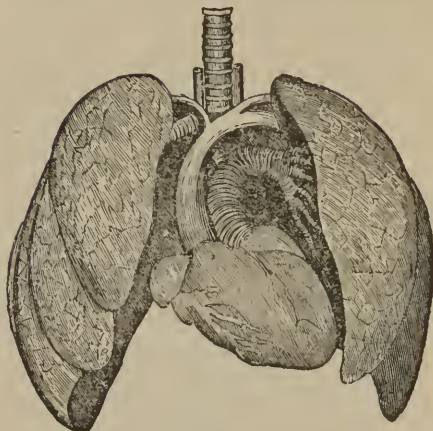
veins, which return the blood carried to the lungs by the pulmonary arteries back to the heart again.

The course of the blood is this: the nutrition of the food, from which the blood is made, is taken up by the lacteals in the intestines, and deposited in the thoracic duct, and is emptied into the vein which passes along the left arm-pit. Thence it is carried into the great vena cava, and emptied into the right auricle of the heart, thence into the right ventricle, through a valve like that of a pump, which will not allow it to return. Thence this venous, or dark blood, passes through the pulmonary artery into the lungs on each side, where it gives off a portion of its carbon, and takes in oxygen from the air we breathe, changing its color to a bright red; then the blood is returned from the lungs by the pulmonary vein into the left auricle, and thence, by another valve, into the left ventricle, and thence sent throughout the system through the aorta which rises from this part.

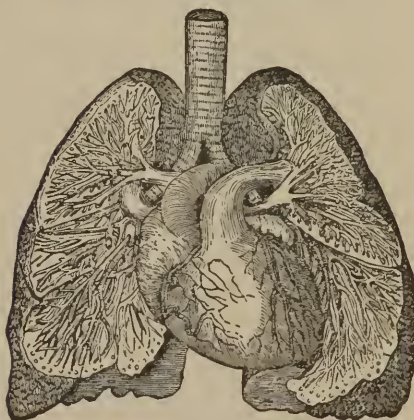
When this blood has reached every part of the body through the arteries, and nourished it, then, having parted with its oxygen for the supply of all parts, it returns, through the veins, as venous blood, to the great vena cava, ascending from below the heart and descending from above the heart, and is emptied into the right auricle of that organ, from which it starts its round again. In this way, every two and a half minutes, the entire mass of blood passes its round throughout the whole circulation.

No. 2. THE HEART AND LUNGS. These organs are here shown in their connections. The figure shows the exact location of the heart in relation to each lung. The left lung is denoted by *a*; the right lung by *b*; the

PLATE V. RESPIRATORY SYSTEM.



NO. 1 LUNGS: THEIR TWO LOBES.



NO. 2. LUNGS AND HEART.

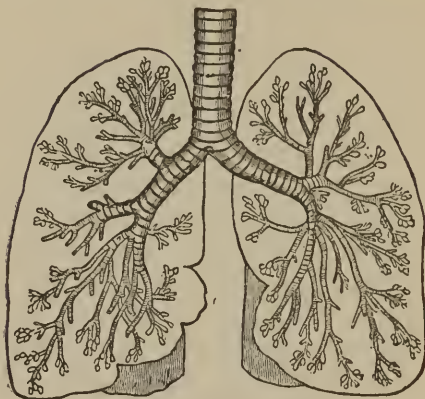
windpipe by *c*. The heart is denoted by *d*; the pulmonary artery by *e*; the great descending vena cava by *f*; a part of the arch of the aorta by *g*.

Plate IV. The Circulating System.—No. 1. ARTERIES AND VEINS. This figure gives a general view of the large and small arteries. Beginning with the aorta where it is divided from the heart, we pass over its arch and follow it downwards till it divides for each lower limb. During its passage downwards it gives off various branches to supply different internal organs. The arteries of the arms and other parts are also exhibited. These arteries pass away into minute ramifications to supply every particle of flesh with blood. These ramifications meet with corresponding ramifications of veins, which are called capillaries. At the union of these there are inconceivably small valves, which prevent the blood propelled forward by the arteries from returning after it enters the veins.

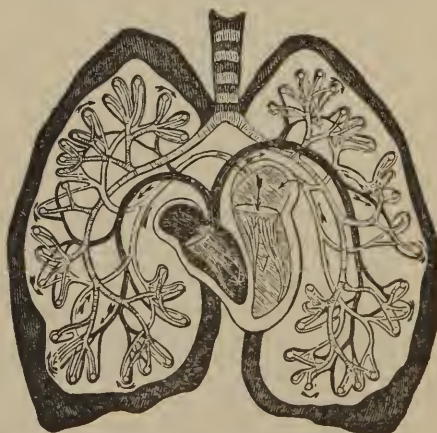
No. 2. This figure represents the general view of the veins by which the blood thrown out by the arteries is carried back to the heart and lungs. At the lungs, by the process of respiration, the blood, as already stated, meets the air, which modifies its character. At the surface, by the capillaries, the blood is also affected by contact with the atmosphere through the skin.

In order for a healthy circulation of blood, the first thing to be done is the using of such food as is best adapted to make pure blood. While we create impure blood, it is useless to expect to cleanse that vital fluid by any artificial means. The quadruped meats make blood far less pure than the breadstuffs. This is especially true of the meats which we generally find in our markets, and more especially true of all swine's flesh.

PLATE VI. RESPIRATORY SYSTEM.



NO 1 AIR CELLS OF THE LUNGS.



NO. 2. AIR-CELLS AND BLOOD-VESSELS.

Scrofulous complaints, tubercles on the lungs, cancerous affections, diseased liver, and other glands, are abundantly produced by gross animal diet.

Plate V. Respiratory System.—No. 1. THE LUNGS; RIGHT AND LEFT LOBES. The lungs are here presented, exhibiting simply their external appearance. The right lung has three divisions or lesser lobes; the left lung has only two. Their substance is of a spongy character, soft and elastic.

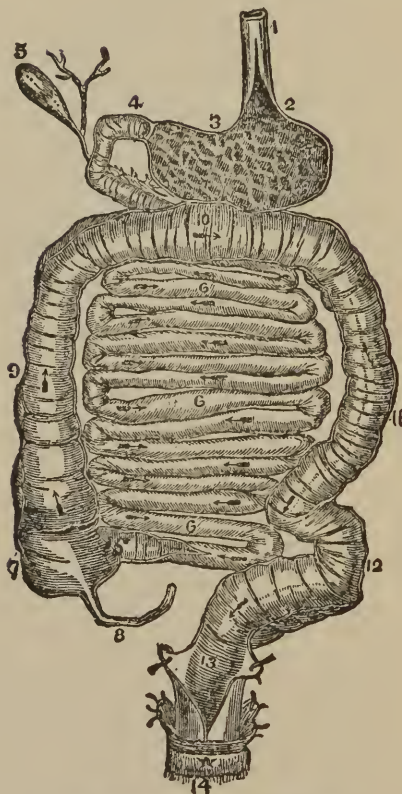
No. 2. THE LUNGS WITH THEIR BLOOD-VESSELS. This figure shows the connection between the spongy portion of the lungs and its intermingling ramification of blood-vessels. Here are seen the minute branches of the right and left pulmonary arteries, distributing the blood to every part, to meet the air received in the air-cells in the process of breathing.

Plate VI. Respiratory System.—No. 1. THE LUNGS AND THEIR AIR-CELLS. This figure gives the air-cells of the lungs. The trachea or windpipe first receives the air we breathe, which pipe divides into two tubes, called bronchial tubes, and these divide and sub-divide till they become lost in the little air-vessels here seen.

No. 2. THE LUNGS, AIR-CELLS AND BLOOD-VESSELS. This figure represents the air-cells in the lungs, as connected with their corresponding arteries and veins; the pulmonary arteries carrying the blood to exchange its gases with the air in the air-cells, there giving off its carbon, and taking in from the air its oxygen, and then the pulmonary veins returning that renovated blood back to the heart and the general circulation.

Plate VII. Digestive System.—ALIMENTARY AND INTESTINAL CANAL. 1. The Esophagus, or gullet, through which food and drink enter the stomach.

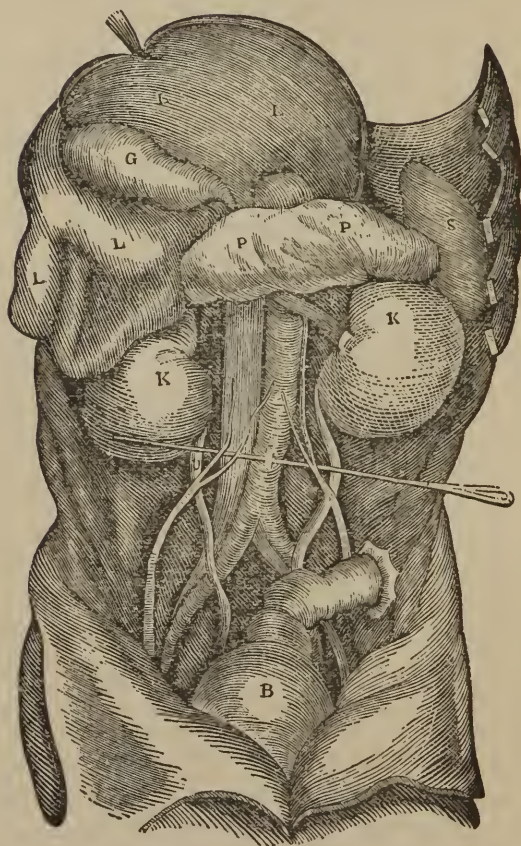
PLATE VII. DIGESTIVE SYSTEM.



ALIMENTARY AND INTESTINAL CANAL

2. The Cardiac Orifice, or entrance of the gullet into the upper portion of the stomach.
3. The Stomach, laid open, showing its interior surface or digestive membrane.
4. The Pylorus, or outlet of the stomach into the upper section of the small intestine called the Duodenum. This name is derived from the length of this section, it being about the breadth of twelve fingers in the average adult, or about ten inches long.
5. The Gall-bladder, with its delicate outlet-tube where its contents empty into the Duodenum near the middle of its length.
- 6, 6, 6. The different sections of the small intestine from the upper portion of the Jejunum where it passes from the Duodenum, spirally downward through the lower section (Ileum), terminating at the Cæcum (15) where it enters the Colon or large intestine.
7. The lower and enlarged pouch of the Colon situated just above the right groin and below the right kidney.
8. A small worm-shaped tube as a lower terminal or elongation of the Colon, called the Appendicula Vermiformis (worm-shaped appendage). This singular organ seems to have no useful or necessary office in our anatomical structure, but on the contrary is often the cause of death from a fruit seed or other hard substance becoming wedged in it. It is one of the greatest mysteries of the human anatomy.
9. Shows the ascending portion of the Colon, passing up in close proximity to the right kidney.
10. The transverse arch of the Colon, which crosses the abdomen abruptly from the right side to the left.

PLATE VIII. DIGESTIVE SYSTEM.



• SPLEEN PANCREAS. AND BLADDER.

11. The descending Colon—the most “fearful and wonderful” portion of the intestinal canal.

12. The Sigmoid Flexure or complicated bend in the Colon. This is the citadel of Constipation and the fortification where it does so much harm to the human organism. Like the *Appendicula Vermiformis*, one is inclined to regard it as a positive defect in our organism.

13. Is the Rectum, or lower section of the Colon, extending downward from the Sigmoid Flexure, and is thus named because the ancients supposed it to be perfectly straight.

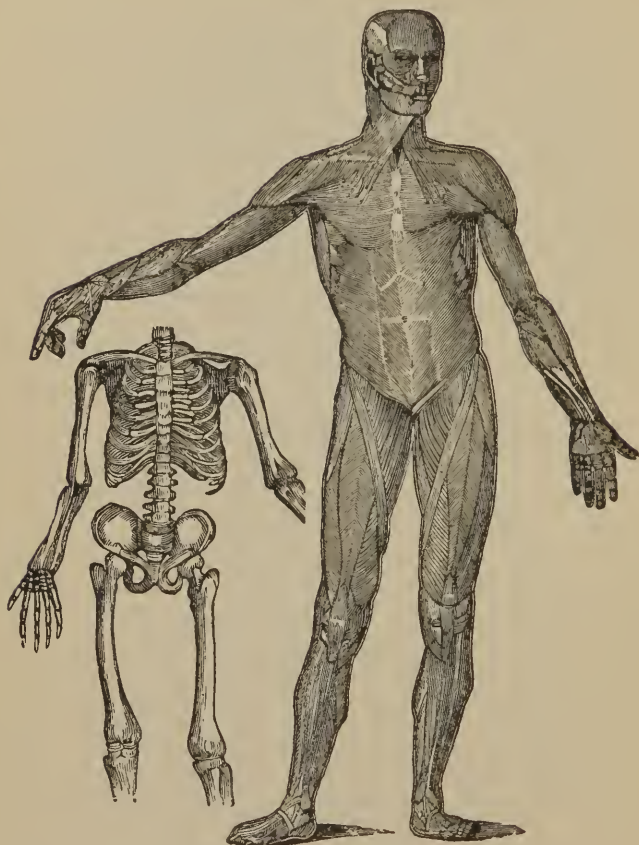
14. The Anus or final outlet of the intestinal canal. The entire length of this tube in the average adult, from numbers 1 to 14 in the engraving, is about thirty feet; while the Colon or large intestine is five feet in length, and of varying diameter, and is estimated to be capable of containing somewhat more than a gallon of contents when extended.

15. The Ileo Cæcal Valve. This very mechanical organ is so formed that it allows the contents of the small intestine (6, 6, 6) to pass freely through it into the Colon at 7, but prevents their return.

The view here given of the intestinal apparatus is such as one would be supposed to see with the entire front portion of the body laid open while standing before a mirror, provided the other Viscera of the internal structure were removed. It will at least give to every possessor of this book such a general conception of his or her vital structure as may be of great use through life.

Plate VIII. Digestive System.—THE SPLEEN, PANCREAS AND BLADDER. This figure presents organs more remotely connected with the digestive process. *L, L, L,*

PLATE IX. MUSCULAR SYSTEM.



FRONT SECTION OF MUSCLES.

is the liver turned upward ; *G*, the gall-bladder ; *P*, *P*, the pancreas ; *S*, the spleen ; *K*, *K*, the kidneys ; *B*, the bladder. The great vein, vena cava, which returns the blood from the lower parts of the body up to the heart, can be distinctly seen passing up a little to the right of the spine ; while on the left of it, the great artery, aorta, is seen passing down, conveying the blood from the heart to the lower parts of the body.

Plate IX. The Muscular System.—THE FRONT SECTION OF MUSCLES. This plate presents a front view of the muscular system. The skin and fatty substances being removed, the muscular fibres can distinctly be seen running in different directions. The bony system is only the framework of the man ; the muscular is the inside covering, and in a large degree the filling up of that framework. In the bony system alone there is no motive power ; the will cannot act directly on the bones ; the muscular system is the only immediate medium through which the mind can control their movements. The mind acts through the nerves on the muscles, causing them to contract, and thereby directs the action of the bony frame.

These muscles are attached in their origin to some substantial fastening of bone, and then extend to some other point in the bony system to be fastened by insertion. Thus the Sartorius, or tailor's muscle, the longest muscle in the body, is arranged. It has its origin, or first fastening, in the bone of the hip. It then passes over in front of the thigh, gradually inclining inward as it passes down on the inside of the knee, to be inserted into the bone of the leg on its inside. This muscle aids in bending the thigh ; it rolls the hip-joint, and lifts one leg over the other as tailors sit.

PLATE X. . MUSCULAR SYSTEM.



BACK SECTION OF MUSCLES

Plate X. The Muscular System.—THE BACK SECTION OF MUSCLES. This plate presents a back view of the muscular system, showing the origin of various muscles which attach their fibres in and about the back, and extend to their different insertions, according to the object for which they are intended.

These plates give a general idea of the muscles and fibres of muscles throughout the external parts of the body; the internal muscles are not attempted. It is not expected that a minute idea of these muscles or their names can here be obtained; it is intended only to give general knowledge of the subject for general, practical purposes.

The two skeletons on this and plate IX. are intended to exhibit a front and a back view of the bony frame of which the body is composed; and also some idea of the depth of the muscles which is required to cover them.

REMARKS.—A word may be due here on the formation of muscular fibre. Substances which contain azote, or nitrogen, are indispensable in the food for the creation and support of muscular strength. It is important to know something of the proportion of this element contained in the different articles used for food. It may be due here to say, also, that substances containing carbon are essential to the production of heat, and therefore as essential to life as those which produce only muscular fibre.

The grains contain carbon, the basis of starch, much more largely than the flesh of animals. They also abound in gluten, which contains nitrogen for the formation of muscular fibre. This is true especially of wheat. Hear what Dr. Carpenter, in his *Principles of Human Physiology*, says on this point:

“The mixture of azotized and non-azotized compounds, gluten and starch, that exists in wheat flour, seems to be just that which is most useful to man; and hence we see the explanation of the fact, that from very early ages bread has been regarded as the ‘staff of life.’”

Liebig, in his *Animal Chemistry*, says: “Chemical researches have shown that all such parts of vegetables as can afford nutriment to animals, contain certain constituents which are rich in nitrogen.”

These azotized or nitrogenized forms of nutriment found in the vegetable kingdom, he reduces to three elementary substances, namely, vegetable Fibrine, vegetable Albumen, and vegetable Caseine. All these abound in the breadstuffs, especially the wheat.

The amount of nutrition which we obtain from food depends not alone on the particular kind we take or on the quantity, but on the proportion of nutriment which belongs to the nature of the article.

The following table, made out from the highest authorities, will show the proportion of nutrient properties belonging to different articles used in ordinary diet. The figures against each article show the amount of nutrition which each contains in every one hundred parts:

VEGETABLE FOOD.		ANIMAL FOOD.	
Wheat, about.....	85	Beef, about.....	25
Barley, “.....	83	Veal, “.....	25
Rye, “.....	83	Mutton, “.....	25
Oats, “.....	79	Lamb, “.....	25
Oatmeal, “.....	93	Chickens, “.....	22
Rice, “.....	90	Codfish, “.....	20
Peas, “.....	93	Oysters, “.....	13
Beans, “.....	92	White of Eggs,.....	20
Potatoes, “.....	25	Yolk of Eggs,.....	46

The readiness with which different articles can be

digested, has to do in some degree with the readiness with which life can be sustained by them. The following table will show the length of time required in the digestion of different articles, as shown by experiments made by Dr. Beaumont on Alexis St. Martin, whose stomach was exposed by a gunshot wound. The figures against each article show the hours and minutes required for the stomach to perform its portion of the digestive process. This is as far as the experiment with St. Martin could go; the rest of the process of digestion, requiring more or less time, consists in the formation of chyle in the Duodenum, or second stomach, and its absorption by the lacteals. But the difference of time required for the whole process of digestion of different articles is doubtless chiefly confined to the stomach:

VEGETABLE FOOD.	ANIMAL FOOD.
Apples, sour, mellow, 2.—	Beef, lean, fresh, rare, roasted, 3.—
Apples, sweet, mellow, 1.30	Beefsteak, broiled, 3.—
Beans, boiled, 2.30	Beef, salted, 3.36
Bread, wheat, 3.30	Beef, fresh, lean, fried, 4.—
Bread, corn, 3.15	Beef, corned, boiled, 4.15
Corn cake, baked, 3.—	Codfish, cured, boiled, 2.—
Apple dumpling, 3.—	Chicken, fricassee, 2.45
Potatoes, Irish, boiled, 3.30	Duck, domesticated, roasted, 4.—
Potatoes, Irish, baked, 2.30	Duck, wild, roasted, 4.30
Rice, boiled, 1.—	Eggs, boiled, hard, 3.30
Sago, boiled, 1.45	Eggs, boiled, soft, 3.—
Tapioca, boiled, 2.—	Mutton, fresh, roasted, 3.15
Parsnips, boiled, 2.30	Oysters, raw, 2.55
Cabbage, raw, 2.30	Oysters, stewed, 3.30
Cabbage, boiled, 4.30	Pork, fat and lean, 5.15
Milk, raw, 2.15	Veal, fresh, boiled, 4.—
Cheese, raw, 3.30	Veal, fresh, fried, 4.30

Milk and cheese are put under the head of vegetable food, because they are extracted directly from the vegetable kingdom, and have never become animal flesh, and vitalized with the electric currents of animal life.

By comparing the average of time required for forming chyme, it will be seen that a little more time is required for animal substances than vegetable; that soups require a longer time than more solid articles. They are generally greasy substances, which, when introduced into the stomach, cannot as well be grappled with and intermixed with the gastric juice as other and more solid substances. For this reason melted butter should not be introduced into the stomach.

The following table, containing a few leading articles, shows the proportion, to each one hundred parts, of Azote, the flesh-forming principle, of Carbon, the heat forming principle, and of Alkali for the formation of bone, contained in each article:

100 PARTS.	AZOTE.	CARBON.	ALKALI.
Wheat, about.....	21.....	62.....	2
Barley, “.....	14.....	68.....	2
Oats, “.....	11.....	68.....	3
Beans, “.....	31.....	52.....	3
Peas, “.....	29.....	52.....	3
Potatoes, “.....	2.....	22.....	1
Beef, Veal, Mutton,.....	20.....		

The lean meats contain no considerable amount of carbon or alkali; they abound only in azote, the basis of fibrine. The fat of meats abounds in carbon. The breadstuffs and some other vegetables abound in both principles, and contain them much more largely than the meats.

The objection to quadruped animal flesh consists mainly in its stimulating properties, which tend to inflame the blood, oppress mental activity, and enhance the grosser animal passions. This stimulus depends, probably on the electricity which abides in the flesh after its vitality becomes extinct. It is electricity which

keeps the constituent elements of the flesh in union; as electricity departs, these elements gradually lose their attraction for each other, and entire dissolution is the final result.

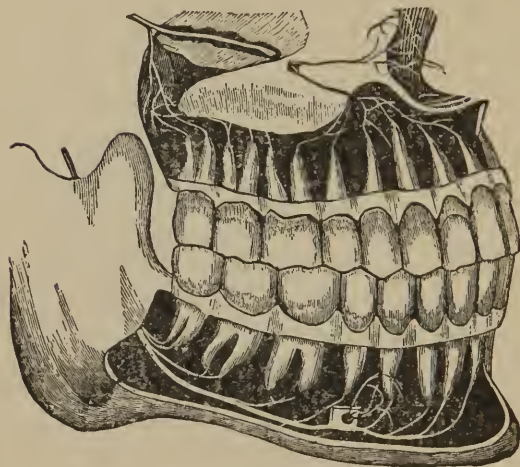
In taking the meats, we take into the system the electric properties of dead animal flesh. These electric properties are not pure, like those of pure atmosphere, but consist of electricity recently the agent of their animal nature and developments, which still retains its animalizing agencies—which, being received into the system, becomes incorporated with, and a part of, our own nature. How much better, then, that we content ourselves with that bread made from the entire wheat flour, which from the beginning has been correctly denominated the “Staff of Life!”

Plate XI. The Forms of Teeth.—NO. 1. HUMAN TEETH. This figure exhibits the teeth made bare by removing the integuments of the face and lips. The object is simply to show that man cannot be properly classified, according to any indications from his teeth, as a carnivorous or flesh-eating animal. His teeth, comparatively, are short and broad, for masticating fruits and farinaceous aliment, instead of being long and sharp-pointed for tearing the flesh of his fellow-beings.

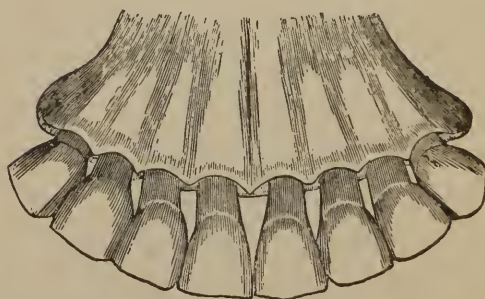
NO. 2. THE COW'S TEETH. The character of these teeth are closely allied to that of human teeth. The cow was not made for devouring animal flesh for her subsistence; yet, unnatural as it is, she can be trained into that habit of living till she feels, like many human beings who have adopted the same course, that she cannot dispense with it.

If there is any force in arguments drawn from any indications pertaining to the teeth as to what man shall

PLATE XI. FORMS OF TEETH.



NO. 1. HUMAN TEETH



NO. 2. COW'S TEETH.

eat, the proof is decidedly, as seen in this and the next plate, against his eating flesh.

Plate XII. The Form of the Teeth.—No. 1. TEETH OF THE BABOON. Here is another fruit-eating animal, whose teeth certainly furnish no stronger proof of his being a vegetable-eating animal than those belonging to the human mouth. When his teeth are compared with those of the following plate, there will be found a strongly-marked distinction.

No. 2. TEETH OF ORANG-OUTANG. The teeth of this animal, which closely approximates the human species, are less closely allied to the human teeth than those of the cow; yet, instead of being naturally an omnivorous animal, whose food is compounded of animal and vegetable, he is decidedly and entirely a fruit-eating animal.

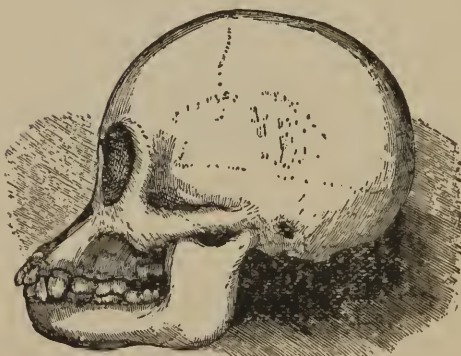
No. 3. TEETH OF THE TIGER. Here are presented the teeth of another class of animals,—the carnivorous or flesh-eating animals. The front teeth are long and sharp-pointed, adapted to grasp and tear the flesh of its fellow-animals. The tiger lives on flesh alone. Compared with his, the teeth of the baboon or orang-outang would be less unlike them than those of the human species. Hence, man would be the last of the three to be suspected of a nature adapted to even a mixed diet of animal and vegetable food.

Plate XIII. Position of the Chest.—No. 1. SITTING POSTURE. In this figure is described the general sitting posture, right and wrong. Here are two school-boys: one erect in a chair, the other crouching on a high stool. These figures not only describe the position of boys, but also girls. They also not only describe the posture, good and bad, of pupils in the schools, but the posture of the world, while sitting in their various callings in life.

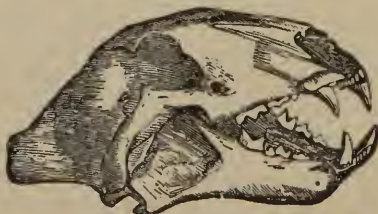
PLATE XII FORMS OF TEETH.



NO. 1. TEETH OF THE BABOON.



NO. 2. TEETH OF ORANG-OUTANG



NO. 3. TEETH OF THE TIGER.

There is too little care taken about the arrangement of seats in school-rooms. If they are so high that the flat feet cannot rest on the floor, they are inconvenient for sitting in a right position. They should have backs reaching up nearly to the shoulder-blades. Without this arrangement the back grows weary of supporting itself, and there follows an inclination to let the spine curve over the lungs, pressing them downward, and thereby pressing down also the whole contents of the chest and abdomen.

The boy on the left of the reader is giving his chest space for full play of the lungs in the process of breathing; a very important matter, not only for his bodily development, but also for the action of the mental energies. The boy on the right is adopting the opposite course.

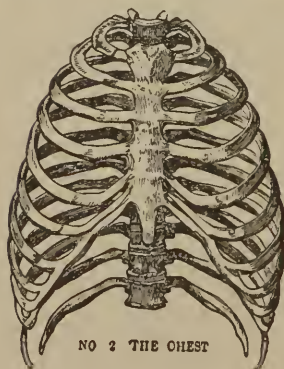
NO. 2. SITTING AT TABLE. Here is represented two lads at a table writing, the one occupying a right position and the other a wrong position. Persons accustomed to writing are extremely apt to oppress and cripple their chest. This prevents the full volume of air being received into the lungs, which is essential to the right performance of respiration. There is consequently insufficient oxygen taken into the circulation of blood, and insufficient opportunity for the venous blood to throw off the surplus of carbon which it contains.

By this unnatural pressure, the proper exchange of these gases is not only impeded, but the air-cells of the lungs are pressed together and irritated. Then chronic or acute inflammation often sets in, producing cough, which perhaps ends in ulceration and death by consumption. And, while this irritation and cough are coming on, other adjacent organs, the heart and liver

PLATE XIV POSITION OF THE BODY.



NO 1 STANDING POSTURE



NO 2 THE CHEST

and stomach, are often affected—both by pressure which comes directly on their nearest neighbors, the lobes of the lungs, and indirectly on themselves, and also by direct sympathy with those organs. The diaphragm becomes also pushed out of its proper locality, and the right performance of its appropriate functions.

Plate XIV. Position of the Body.—No. 1. THE STANDING POSTURE. The positions good and bad, while standing, are here seen. The one on the right of the reader stands erect, as though he felt that the best position for his body is that in which the Creator originally made him; as though he wished to give full chance for the exercise of lungs and voice in spreading light and truth; as though he did not think too highly of himself, but soberly accordingly as Nature had given to him his measure of grace, and as though he had also a clear conscience in an upright mind, which needs an upright body for its present tabernacle.

The figure on the reader's left seems to present one whose stunted breathing has been of such long standing as to give to his whole body and mind that excessive meekness which grows out of physical and vital imbecility. The meekness of his posture is but an index to the meekness of his moral courage. He seems to indulge justifiable doubts as to the practicability of his ever accomplishing much in the world, or of leaving any strong marks in proof of his ever having lived in it. His vocal pipes are curved out of their right line; his lungs have sunk away into comparative insignificance, and the whole contents of the abdomen seem to have fallen asleep in the basement story of their dwelling.

No. 2. THE RIGHT FORM OF CHEST. This figure simply shows the compass of the chest, by front view,

PLATE XIII. POSITION OF THE CHEST.



NO. 2. POSTURE AT TABLE.

which the lungs occupy. We can easily see by this the impossibility of letting the chest fall in, without doing violence to its external framework and all its contents. The front bone in this figure is called the sternum. The ribs are attached backward to the spine or backbone, and forward to the sternum by firm cartilages. When the sternum or front-bone is pressed in by bending over, the whole company of ribs are also pressed out of place.

The whole trunk should be kept habitually so erect, that the perpendicular measure of the body from the centre of the neck downward should be the same, whether the line be placed in front of the body or upon the back. This erect position is of great importance in relation to the vocal organs in singing or speaking. A great many throat complaints in public speakers have been caused by the vocal avenues being bent out of natural shape by stooping over to read. The air being forced through these crooked pipes, has produced on their lining membranes chronic inflammation. The bronchial membranes, further down the chest, have also been injured in the same way.

Plate XV. Tight Lacing.—No. 1. ON THE EXTERNAL FORM. The external form is greatly distorted by the fashion of binding the lower part of the chest with corded stays. Though the severity of this fashion has subsided in a large degree, still there is great fault justly to be found in the tightness of the present dresses. Many a female has ruined herself for life by trying to improve the works of Nature in her form.

In the figure on the reader's left is exhibited the unnatural form produced by lacing. The lower part of the lobes of the lungs, which need the most room for expansion in breathing, have the least chance for it.

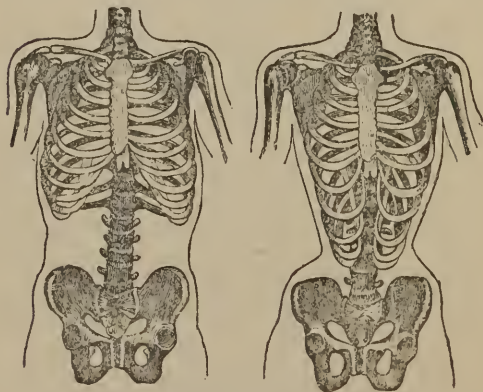
PLATE XV. TIGHT LACING



ARTIFICIAL WAIST.

NATURAL WAIST.

NO. 1. ON EXTERNAL FORM.



NO. 2. ON INTERNAL FORM.

And not only the lungs, but the liver, and diaphragm, and stomach, and heart, and pancreas, all of which organs lie in the regions of the distorted part, are more or less affected by this abuse.

The figure on the reader's right represents one who wears easy dresses, which cannot distort Nature's taste in the formation of the body. Though its form may not so well suit the fancy of one whose brains might be put into a very small space without being compressed, yet to every sensible mind is far preferable.

NO. 2. ON THE INTERNAL FORM. This shows the effect of lacing upon the internal framework of the chest. The left figure shows the spine, and ribs, and sternum, in their natural and healthy proportions. The lower ribs are undisturbed, having all their native elasticity for the purpose of giving expansion to the lower portions of the lungs, and room also for other organs in the same region.

The right figure shows the compressed and distorted ribs, where the lower part of the lungs have no freedom of action, and the breathing is forced up into upper portions of the lungs, where comparatively little chance for expansion can be had.

The spine often suffers from the compression of the chest. The spinal column has no natural elasticity for forming curves, except forward and backward; all sidewise curvatures are, therefore, necessarily unnatural and diseased. These sidewise distortions are often produced, directly or indirectly, by these compressures about the chest.

REMARKS.—From the foregoing plates which have been described, it can very easily be seen what must be the inevitable consequences of wrong habits of eating

and drinking, and other wrong indulgences of appetites. If we use wrong nourishment,—articles which, though they contain nutriment, also contain other qualities that are injurious,—we can see how extensively those hurtful influences are scattered into every part of the system.

The general influences of quadruped meats in deranging the circulating fluids and poisoning the blood, are distributed in every minute part of the system by every pulsation of the heart. The blood which contains that morbid matter reaches its extreme points of destination throughout the system in less than two minutes after it leaves the heart. In this way particle after particle is deposited in the flesh of the whole body.

Let those know who indulge in alcoholic drinks, or any other false, sensual and exciting luxury, that they are receiving an article into the whole flesh and fluids of the body which inflames the whole circulation of fluids, corrupts the flesh and tends to prostrate the native energies of the mind.

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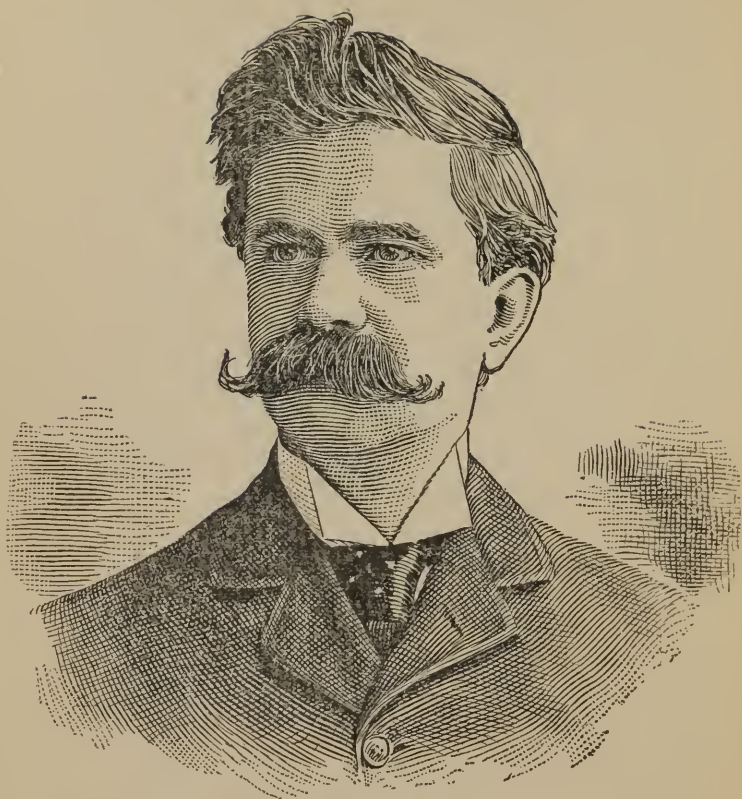
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*Author of "How to Win," "Occult Forces," "Key to Power,"
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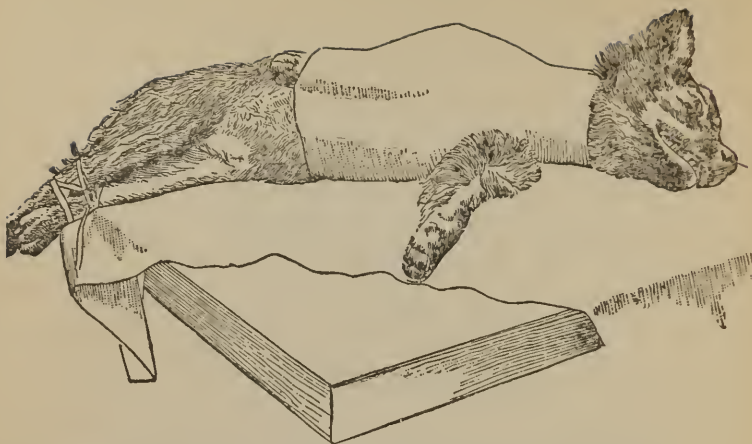
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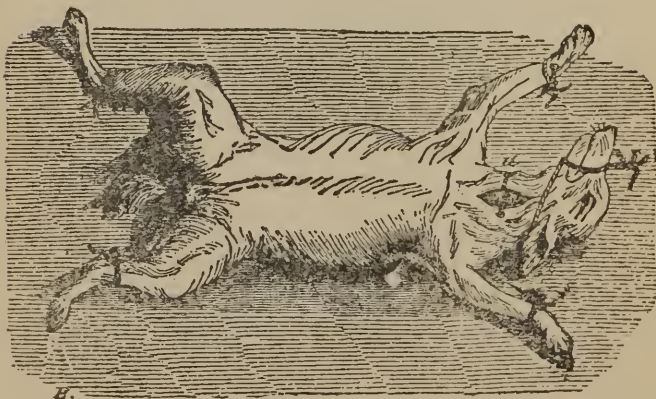
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A New York doctor twisted and bound the legs of dogs in unnatural positions; forced the leg of one dog over its back, binding it, and sealing it in plaster-of-paris; kept it thus 145 days. The above illustration is an exact copy of the drawing accompanying the article written by said doctor and published in *Laboratory Researches*. They who know the pain of a limb even a short time in a cramped position can imagine the sufferings of this dog.



Windpipe of a dog dissected out to stop the cries of the animal under experimentation.—De Graaf, No. 5.

INTRODUCTION.

DURING years of work and study as a practical healer, I have been lead to realize the importance of a book which would teach the people the value of foods, and the intimate relation existing between the food taken into the system and the higher life of man. The subject is one which should be of deep interest to every student of human life, and to every one who is seeking to come into harmonious relation with the laws of Nature. It rests upon a scientific basis, and the workings of the laws of cause and effect are as plainly discernible as in any other process of Nature.

It has been my earnest endeavor to lead all those with whom it has been my privilege to come in contact, as teacher, physician and friend, to new and better methods of thinking ; to a higher, truer, holier life. As Principal of the National Institute of Science, my field of labor has been wide, and the loving testimonies of students, whose lives have been broadened and sweetened by my efforts in their behalf, is sufficient reward for my earnest labors, and ample evidence of my success.

In the course of lessons in Personal Magnetism, the student is taught how to care for his body, that temple of the living soul, and is shown its true relation to the psychic or higher life, of which it is but the instrument. It should be kept in perfect condition if it is expected to perform its proper functions. The man who neglects

your method of life, but the welfare of those you meet in daily life. So long as you travel in the old way of ignorance, you are keeping others in the same path; but when you step out into the sunlight of freedom, you embolden others to follow. There are many who, while not daring to think for themselves along new lines, are yet willing to accept the doctrines after they have once been proclaimed by a leader.

You should never be content to be a mere follower. Be independent enough to think for yourself, and when you have once become convinced that any theory is wrong, no matter how plausible the argument in favor of it, do not be afraid to reject it, and trust to your own good sense and calm reason rather than to the opinions of others. Wherever common sense leads you need not fear to follow. Study your subject and thoroughly understand it, then do not allow any one else to decide what you shall do. Custom and fashion are arbitrary, but you can be superior to both. After you have given the subject of foods due study, and have seen the terrible results upon the human race of flesh-eating, your decision will be in favor of a natural diet, and after you have lived awhile upon the pure products, you will have no desire for those things which you know debase your whole nature.

I have never yet met one who, after abstaining from meat for a period, was willing to return to the gross flesh and grease of former days, the heavy, sodden vegetables and indigestible bread that made his life a burden and deprived him of the joys of life. He knows that his system is now clean, and that when he eats those things which Nature has given, that he is not taking into his system some loathsome disease. He knows

CHAPTER I.

MAN NOT NATURALLY A CARNIVORA.

THE welfare of a nation depends very largely upon its diet and knowledge of hygiene, and it is a serious mistake for a highly civilized State to allow its masses to grow up in ignorance of the fundamental laws of health, of what constitutes wholesome, economical and nutritious food, and of the proper methods of preparing the same.

“Tell me what you eat, and I will tell you what you are,” say some of the most radical dietic reformers of the day. This is partly true. If a man is a glutton, devouring quantities of coarse food, and washing it down with abominable liquids, his every look and action will testify to the grossness of his physical fiber. His thoughts and appetite will be no less coarse than the food he eats. His life, which is but the outward expression of the inward thought, must of necessity become brutalized and degraded by the common material of which it is built.

As a nation we have paid no attention whatever to diet. The rich have surfeited on the most exquisite (?) viands procurable. The feasts of Lucullus have faded into insignificance before the royal magnificence of our gluttonous riots. For our delectation men have searched sea and shore, braved the terrors of the northern blast and toiled unceasingly under torrid skies; they have slaughtered the innocent and robbed the helpless, destroyed with wanton savagery and laid the trophies at our

feet to satisfy our abnormal appetites. The purple grape has yielded its rich blood to please our taste, and we have manufactured hideous poison from every grain and fruit to burn with unquenchable fire the delicate tissues of the body. The helpless victims of our insatiable lust are countless. In every part of the land we have erected immense shambles, where daily sacrifice is made to the Moluch of our beastly passion. We have built high wine vats, where is poured out constant oblations to our gods of strong drink. We have, in our ignorance, made us a nation of degraded brutes. Swayed only by impulse, victims of uncontrolled appetites, can we wonder that man, created in the image of the Divine, has fallen to the level of the brute creation?

Man, the master of the world, has made it what it is. Into his hands it was delivered with all its mighty possibilities for good, for evil, for happiness and for woe. Yielding to the admonitions of his sensual nature, he has made of it a very hell, which consumes the inmost soul of the tender and the loving with anguish unquenchable. Would he but work in harmony with the divine laws of Nature, he could convert it into the original Paradise of man.

When we would study the methods and laws which philosophy and modern science have indicated as best adapted to the development and perfection of our kind, we turn first to natural history, and seek in the study of comparative anatomy of men and other animals for information regarding the habits and mode of living of primitive man.

The classification of Linnæus, which is admitted without serious objections by eminent scientific men to be the correct one, we find under the name of Primates

sumed meat for their food were forced to become their own butchers and prepare their victims for the table with their own hands, few would care to eat the flesh when it came to the table, while no one however delicately bred would object to plucking from vine and tree the bounties which kindly Nature provides.

The torture of the animals doomed to be sacrificed is indescribable. To be appreciated they must be witnessed. The horrors of the long drives, of the shipping-car, of the pens and slaughter-house, the cruelties of the dehumanized brutes in charge, the barbarity of the butcher, are beyond the reach of tongue or pen. If all would learn the truth of the horrible atrocities practiced upon the poor, patient brutes which form so large a portion of our daily food, many would turn from beefsteak, mutton chops, lamb stew and fowl with feelings of utter loathing. The shipment of stock, whether by rail or boat, is attended with the most horrible suffering. Many succumb to hunger, thirst, fatigue and ill-treatment before the voyage is half over. The report of the shipping companies reveal a shocking state of affairs. The poor animals, tortured beyond endurance, are driven to the slaughter-pens, and in this extremity of agony are converted into food for man. He takes into his system not only their disease produced by the brutal treatment they have undergone, but also the intense nervous strain from which they have suffered, which must have had a marked effect upon the physical being of the poor creature, and in eating the flesh man takes into his system the psychic elements of the agonized brute, and must of necessity suffer from the strain which so recently racked the flesh he is now making a part of his own body.

The Society for the Prevention of Cruelty to Animals

fited, would be sufficient proofs of the health-destroying influence of drugs. And many are so blinded they do not see that all the drugs they have taken have not cured them, but made them worse. The drug-invalid numbers one in the world, but is generally peevish, irritable, always sick, lingering out a miserable existence, and seems to live only to call into constant exercise the patience of others. Poisonous drugs have not killed them outright, for Nature is loth to give up her hold on life ; she is unwilling to cease her struggles ; yet these drug-takers are never well.

The brains of thousands of men, and tens of thousands of children, have been debilitated and their minds clouded with thick mist, and, in many cases, totally darkened, by those powerful, life-killing drugs employed as healing agents. How many mothers, in order to make their little ones sleep, have blunted their moral sensibilities and rendered their intellect obtuse by dosing them with laudanum, "cordial" and other medicines ! If men would observe the laws of life and health they would never require medicine, and in most cases where they take it they would do better without it if they began in season to practice abstinence and not carelessly and ignorantly augment the disease. And if our physicians instead of confining themselves to the cure of diseases would lecture and inform the people how to preserve their health, though they might make less money they would save suffering humanity a vast amount of misery and premature death. "An ounce of prevention is worth a pound of cure." But owing to the bad organization of society men have no time to attend to their health, in consequence of which the violated laws of Nature compel them to find time to

CHAPTER IV.

HIGH THINKING RESULTS IN UNIVERSAL SUCCESS.

EVERY true student of Nature fully understands the occult meaning of the words so often repeated by teachers of truth, "As a man thinketh, so is he." For centuries priest and preacher have, parrot-like, assured us that as men think so are they, but neither priest nor preacher has attempted to make clear to us the meaning of the words. It remained for one, touched by the divine flame which inspired his utterance to comprehend the depths of meaning contained in that terse sentence: "As a man thinketh so is he." How necessary then that he think right thoughts, thoughts of love and peace, of harmony and contentment. How necessary that the fount from which springs the force that shapes and controls our destiny be pure. "Ye can not gather grapes from thorns nor figs from thistles." So if the fruit be sweet the tree itself must be good. "As a man thinketh," then, deep in his heart, "so is he." If into his life comes sickness, pain, disappointment, failure, poverty, death, it must of necessity be true that in his own mind exist the conditions which bring these things to pass, for as a man is inwardly so is he outwardly. No man ever failed in life who set his heart to accomplish some one darling purpose, to conquer every difficulty, to overcome every obstacle. There was ever present in his soul the one thought, the one desire, the one overwhelming idea which submerged all

this ripe old age can proudly cite himself as an example of the results to be obtained from a natural diet, and there are none who can gainsay him.

It was by mere chance in 1891 that copies of *Food, Home and Garden*, referred to above, fell into the hands of the author of this book, and which made him a convert to vegetarianism.

I can never be sufficiently grateful that I entered upon such a life, as I am firmly persuaded that it is the only natural, and, consequently, ideal diet, and each year but adds to my delight in same, as through its means I enjoy life in its perfection, with none of the hindrances to be met with that so often interfere in the way of indigestion and kindred complaints to mar the happiness of the flesh-eater's existence. And I have the further satisfaction of knowing that no innocent creature has been sacrificed to contribute to my well being.

The future of the race lies in the hands of the mothers, and I sincerely hope that every mother who reads this book will be lead to study foods, their properties and influences upon her life and the lives of her little ones. I trust, too, that it may be the means of leading all from their gross and pernicious habits of eating and drinking to habits of temperance and purity; that those who have suffered from ills, the causes of which they were unable to understand, may come to a realization of the fact that they are themselves to blame, and be led to follow the laws which bring health, and with it perfect happiness.

I have studied the subject so thoroughly, and have watched the outworkings of the law in so many instances, that I do not hesitate to make the statements I have, though to many they may seem absurd. My wide experi-

Natural Way in Diet

OR THE PROPER FOOD FOR MAN.

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"Tell me what you eat and I'll tell you what you are," is an old truism which in itself is a forceful argument for attention to the above. It has been demonstrated beyond the shadow of a doubt that much of the evil now existing is due to wrong living. We all know how drink can turn a man into a very demon, but few, alas, realize how the conglomeration of messes which are forced into the human system, particularly meats, milk and butter from diseased animals, (for all we can prove to the contrary) are the direct cause of many unhappy lives, the result of perverted judgment, ill temper, etc., consequent upon the diet afore mentioned.

A great deal has been said and done in the past few years to promote hygienic living, but there is much, very much, to be accomplished before we can right the wrongs of successive generations. Rich and poor alike in these days are, averagely speaking, familiar with hygienic principles in-so-far as bathing, fresh air and plenty of exercise is concerned; the movement is growing and it is but a question of a short time ere these principles will be generally inculcated; but the main hygienic principle, the proper nourishment of the body, has been sadly neglected and the result, stunted growths, bad complexions, sluggish wits, morbid dispositions, which cannot be overcome entirely, unless this, the first hygienic feature governing life is taken into consideration.

Like a ray of light, piercing the darkness, comes our book "NATURAL WAY IN DIET," a revelation to the masses, teaching them how to live in order to reach the highest perfection known to mankind, mental and physical perfection. Which of us has not realized some imperfection we would like to overcome? To reach the root of the evil, we must begin at the beginning, mere glossing over will not do the work with any degree of satisfaction. **Do you want to better the conditions of your life? Do you seek health, wealth and success?** Our book will show you the right way.

The Food, Home and Garden, of Phila., the oldest advocate of food reform in the U. S., say in their review of this book: "NATURAL WAY IN DIET, OR THE PROPER FOOD FOR MAN," by Prof. L. H. Anderson, author of "How to Win," "Key to Power," etc. This is the latest of Dr. Anderson's books, and it is full of facts and arguments in favor of a humane and merciful system of living. Few men in this country have done as much to promote practical vegetarianism as has Dr. Anderson, of the National Institute of Science, Chicago. This book combines scientific and humanitarian reasons and contains contributions, experiences and portraits of some of the most zealous workers in the cause. The iniquity of vivisection is also exposed. Numerous engravings."

The publishers of *Our Fellow Creatures*, Chicago, say: "The arguments in favor of a vegetarian diet have been freshly clinched by Prof. L. H. Anderson in his new book, "THE NATURAL WAY IN DIET, OR PROPER FOOD OF MAN." The question is viewed dispassionately from all standpoints—scientific, physiological, hygienic and humane. The author declares at the beginning that "a pure diet will result in a pure body, a pure body in pure thoughts, higher ideals and noble aspirations." He urges "temperance (both in eating and drinking) and cleanliness. We make a few extracts (from very many sentiments) whose logic cannot easily be questioned. * * * * * Prof. Anderson cites the cases of Hungarian, Pole, Russ, Irishman, of the peasant class, who are proverbially strong and long-lived. In addition to his denunciation of the slaughter-houses, he attacks every other species of cruelty commonly known. Vivisection receives due lashing at his hands (or head). The volume is handsomely gotten up in green and gold, with clear print, and embellished with a number of portraits and other illustrations."

The publishers of *The Humane Alliance*, New York, say: "NATURAL WAY IN DIET, OR THE PROPER FOOD OF MAN" is a book that should find a place in every home. It is written by Prof. L. H. Anderson, and has just been issued from the press of the National Institute of Science, Chicago, Ill. If everyone could be induced to follow the advice therein contained, there is no doubt but what the world would be much wiser and happier. In this volume there are chapters devoted to the proper diet for man; rules for right living; studies in food; vivisection and many other subjects. It not only serves as a complete guide to health and happiness, but also contains much to interest and entertain."

This valuable volume, highly endorsed by the leading authorities and regarded in scientific circles as one of the most beneficial books ever produced, is so cheap as to be within the reach of all. It contains 232 pages, 28 illustrations, is handsomely and substantially bound in green cloth with silver back and side stamps. Price only \$1.00.



THIS work is the result of years of thought and research. The author has all his life been an absorbed and fascinated student of the mysterious forces which are all powerful in human life; yet are veiled in their operation. Only the earnest seeker after truth who has risen to the higher planes of thought is capable of coming to correct conclusions



regarding the wonderful powers which knowledge and soul development bring within the reach of man, and make subservient to his will.

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